Data from Test Fisheries Conducted in the Baffin and Central Arctic Regions, Northwest Territories, 1980-84

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September 1985

Canadian Data Report of Fisheries and Aquatic Sciences No. 531

85-5826/

Canadian Data Report of Fisheries and Aquatic Sciences

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Canadian Data Report of

Fisheries and Aquatic Sciences 531

September 1985

DATA FROM TEST FISHERIES CONDUCTED IN THE BAFFIN AND CENTRAL ARCTIC REGIONS, NORTHWEST TERRITORIES, 1980-84

by

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This is the 76th Data Report

from the Western Region, Winnipeg

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Cat. no. Fs 97-13/531E ISSN 0706-6465

Correct citation for this publication is:

McGowan, D.K. 1985. Data from test fisheries conducted in the Baffin and Central Arctic Regions, Northwest Territories, 1980-84. Can. Data Rep. Fish. Aquat. Sci. 531: v + 68 p.

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ABSTRACT

McGowan, D.K. 1985. Data from test fisheries conducted in the Baffin and Central Arctic Regions, Northwest Territories, 1980-84. Can. Data Rep. Fish. Aquat. Sci. 531: v + 68 p.

A test fishery program was started in 1973 by the Fishery Management Division, of what is now the Department of Fisheries and Oceans, in co-operation with the Wildlife Service, Government of the Northwest Territories, to facilitate the development of new commercial fisheries in the N.W.T. Since then most test fisheries have been conducted by Wildlife Service personnel with analysis by the Department of Fisheries and Oceans. This report summarizes the results of test fisheries, primarily for Arctic charr, conducted in the Baffin and Central Arctic Regions, Northwest Territories, 1980-84.

Key words: experimental fishing; commercial fishing; gillnets; fishery management; size distributions; age composition; charr, Arctic; Salvelinus alpinus; trout, lake; Salvelinus namaycush; whitefish, lake; Coregonus clupeaformis.

RESUME

McGowan, D.K. 1985. Data from test fisheries conducted in the Baffin and Central Arctic Regions, Northwest Territories, 1980-84. Can. Data Rep. Fish. Aquat. Sci. 531: v + 68 p.

Un programme expérimental sur les pêches a été mis sur pied en 1973 par la Division de la gestion des pêches de ce qui est maintenant le ministère des Pêches et Océans, en collaboration avec le Service de la faune du gouvernement des Territoires du Nord-Ouest, afin d'encourager l'établissement de nouvelles installations commerciales de pêche dans les Territoires du Nord-Ouest. Depuis, la plupart des expériences ont été faitespar le personnel du Service canadien de la faune, tandis que l'analyse a été effectuée par le ministère des Pêches et Océans. Le rapport résume les résultats de la pêche expérimentale portant principalement sur l'omble chevalier et qui s'est déroulée dans les régions de Baffin et du centre de l'Arctique, et dans les Territoires du Nord-Ouest, au cours de la période 1980 à 1984.

Mots-clés: pêche expérimentale; pêche commerciale; fillets maillants; gestion des pêches; distribution des tailles; composition de l'âge; omble de chevalier; Salvelinus alpinus; touladi; Salvelinus namaycush; grand corégone; Coregonus clupeaformis.

INTRODUCTION

The Department of Fisheries and Oceans (DFO) initiated a test fishery program in 1973 in the Northwest Territories (Kristofferson and McGowan 1981). The program facilitates the development of new commercial fisheries for new markets within and between communities. The information collected from the test fishery program helps determine the commercial feasibility and initial quota allocations on new fishing areas requested by community groups. The test fisheries are conducted mainly by Resource Development Officers of the Wildlife Service, Government of the Northwest Territories (GNWT). This report summarizes the results of these test fisheries conducted in the Northwest Territories during 1980-84.

TEST FISHERY PROGRAM

A detailed description of the test fishery program is provided by Kristofferson and McGowan (1981). The objective of a test fishery is to determine whether the resource is present in sufficient quantity to maintain a viable commercial fishery and to determine the status of the fish stock. Information can also be collected on other factors important to the long-term survival of the fishery. These factors include the timing of the fishery, transportation, storage and handling and markets.

Most test fisheries are ongoing for at least two or three years, with the permit being renewed annually. Once problems are solved and stock assessment has been undertaken the body of water is identified as having commercial potential and is submitted as a commercial fishery to be listed in Schedule V of the Northwest Territories Fishery Regulations. As with other commercial fisheries, the water body is then opened upon annual request through a Variation Notice for a specified time and quota.

MATERIALS AND METHODS

TEST FISHING

The test fishery procedure is described in Kristofferson and McGowan (1981). Requests were usually received through a Resource Development Officer from interested community groups. The requests were reviewed and approved by the Director of Arctic Operations, Western Region, Winnipeg, Manitoba. A permit was then issued specifying a provisional quota and the type of fishing gear to be used.

Data collected by the officer in charge included fork length, round weight (when possible) and sex. Sagittal otoiiths were removed for age determination. Catch and effort data were also recorded.

DATA ANALYSES

Data were analyzed using computer facilities (Amdahl 58-50) based at the University of Manitoba with a terminal at the Freshwater Institute. Programmable calculators (Hewlett-Packard 9810-A and Texas Instrument 58C) were also used.

A complete data analyses description is given by Kristofferson and McGowan (1981). Results, interpretations and recommendations on the test fishery were returned to the officer in charge.

Table 1 provides a summary of the test fisheries conducted between 1980-84. Only test fisheries that were actually attempted are listed. A harvest of zero kilograms indicates the water body was tested without success. The results from Mangles Bay, Tern Lake, Kingark River and Sports River can be found in Kristofferson et al. (1982).

ACKNOWLEDGMENTS

The author wishes to thank Mr. R.B. Tinling, Supervisor, Resource Development, Department of Renewable Resources, Government of the Northwest Territories, all Renewable Resource Officers and all others who participate in these test fisheries.

The interpretations and recommendations on all the test fisheries were provided by A.H. Kristofferson.

Mr. G.W. Carder determined the ages of fish examined. Drafting was provided by the Graphics Section, Freshwater Institute and typing by S. Ahlgren, C. Catt and B. Cohen. A.H. Kristofferson reviewed the report and provided useful suggestions.

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KRISTOFFERSON, A.H., D.R. LEROUX, and J.R. ORR. 1982. A biological assessment of Arctic charr, Salvelinus alpinus (L.), stocks in the Gjoa Haven - Pelly Bay area of the Northwest Territories, 1979-80. Can. Manuscr. Rep. Fish. Aquat. Sci. 1591: vi + 51 p.

KEY TO WATER BODIES SHOWN ON FIGURE 1

	Waterbody	Coordinates
1.	Magda River	71-39 N, 84-37 W
2.	Unnamed Lake	71-12 N, 87-22 W
3.	Unnamed Lake	72-29 N, 84-35 W
4.	Unnamed Lake	72-05 N, 84-40 W
5.	Jungersen River	71-23 N, 84-37 W
6.	Unnamed Lake (Read Island)	69-12 N, 112-55 W
7.	Unnamed Lake (Kangishuajuak)	64-38 N, 73-05 W
8.	Cox Lake	67-50 N, 115-05 W
9.	Amadjuak Lake	65-00 N, 71-00 W
10.	Qamanirjuaq Lake	63-15 N, 64-33 W
11.	Deerpass Bay	66-56 N, 112-25 W
12.	Russell Bay	65-28 N, 122-52 W
13.	Manitou Bay	65-00 N, 122-09 W
14.	Cloud Bay	65-04 N, 121-40 W
15.	Jupiter Bay	65-19 N, 121-33 W
16.	Mangles Bay	67-28 N, 95-25 W
17.	Tern Lake	67-48 N, 97-02 W
18.	Hayes River	67-18 N, 95-02 W
19.	Kingark River	68-01 N, 94-50 W
20.	Prince Albert Sound	70-37 N, 117-09 W
21.	Ajaqutalik Lake	68-23 N, 82-33 W
22.	Unnamed Lake (Wight Inlet)	62-22 N, 68-23 W
23.	Sports River (Tourist)	68-40 N, 90-30 W
24.	Ikaluit Lake	65-02 N, 67-07 W
25.	Opingivik Lake	65-14 N, 67-22 W
26.	Unnamed Lake (Iyaravung)	66-43 N, 67-48 W
27.	Unnamed Lake (Ikpit)	65-26 N, 67-38 W
28.	Unnamed Lake	65-17 N, 64-05 W
29.	Unnamed Lake (Ptarmigan Fiord)	64-35 N, 66-22 W
30.	Okalik Bay	64-02 N, 65-15 W
31.	Unnamed Fiord (Cumberland Sound Area)	65-43 N, 64-51 W
32.	Unnamed Lake (Kangerk Fiord)	66-27 N, 67-27 W
33.	Unnamed Lake (Kekertelung Island)	66-19 N, 66-41 W
34.	Unnamed Lake	66-43 N, 67-54 W
35.	Unnamed Lake	65-05 N, 63-42 W
36.	Unnamed Lake	65-13 N, 64-02 W
37.	Unnamed Lakes (Beta River)	72-17 N, 81-27 W
38.	Keel River	71-12 N, 75-07 W
39.	Unnamed Lake (Tay Sound)	71-47 N, 78-42 W
40.	Unnamed Lake	71-57 N, 80-27 W
41.	Netsilik Lake	69-15 N, 93-05 W
42.	Netsilik River	69-22 N, 93-20 W
43.	Crooked Lake (Prince of Wales Island)	72-40 N, 98-50 W

Fig. 1. Map of the Northwest Territories showing locations where test fisheries took place, 1980-84.

Table 1. Summary of test fisheries conducted in the Northwest Territories, 1980-84.

Water Body	Geographic Coordinates	Year	Permittee	Quota (kg)	Harvest (kg)	Number Sampled	Species
AREA:ARCTIC BAY							
Magda River	71-39N84-37W	1980	R.Letkeman,RRO,Arctic Bay	1814	791	99	Arctic charr
Magda River	71-39N84-37W	1981	F.Elias,RRO,Arctic Bay	1814	4598	-	Arctic charr
Unnamed Lake	71-12N87-22W	1979	R.Letkeman,RRO,Arctic Bay	0	307	100	Arctic charr
Unnamed Lake	71-12N87-22W	1980	R.Letkeman,RRO,Arctic Bay	680	609	100	Arctic charr
Unnamed Lake	71-12N87-22W	1984	G.Williams,RRO,Arctic Bay	680	540	99	Arctic charr
Unnamed Lake	72-29N84-35W	1982	F.Elias,RRO,Arctic Bay	900	0	0	Arctic charr
Unnamed Lake	72-05N84-40W	1982	F.Elias,RRO,Arctic Bay	900	0	0	Arctic charr
Jungersen River	71-23N84-37W	1984	G.Williams,RRO,Arctic Bay	680	470	99	Arctic charr
AREA:CAMBRIDGE BAY							
Unnamed Lake(Read Island)	69-12N112-55W	1983	F.Elias,RRO,Coppermine	1000	421	111	Arctic charr
AREA:CAPE DORSET							
Unnamed Lake (Kangishuajuak)	64-38N73-05W	1980	P.Kraft,RRO,Cape Dorset	2268	101	54	Arctic charr
AREA:COPPERMINE							
Cox Lake	67-50N115-05W	1983	C.Adjun,RRO,Coppermine	50	50	-	Broad whitefish
Cox Lake	67-50N115-05W	1984	C.Adjun,RRO,Coppermine	60	33	-	Broad whitefish
Cox Lake	67-50N115-05W	1984	C.Adjun,RRO,Coppermine	60	7	-	Burbot
Cox Lake	67-50N115-05W	1984	C.Adjun,RRO,Coppermine	60	43	-	Lake trout
AREA:FROBISHER BAY							
Amadjuak Lake	65-00N71-00W	1978	R.Hunter,RRO,Frobisher Bay	9072	2878	157	Arctic charr
Amadjuak Lake	65-00N71-00W	1980	E.Hall,RRO,Frobisher Bay	2268	875	405	Arctic charr
Qamanirjuaq Lake	63-15N64-33W	1981	S.Akeeagok,FO,Frobisher Bay	1000	150	78	Arctic charr
AREA:GREAT BEAR LAKE							
Deerpass Bay	66-56N122-25W	1982	W.Bayha,RRO,Fort Franklin	2300	0	-	Trout,Whitefish
Russel Bay	65-28N122-52W	1982	W.Bayha,RRO,Fort Franklin	2300	0	-	Trout,Whitefish
Manitou Bay	65-00N122-09W	1982	W.Bayha,RRO,Fort Franklin	2300	0	-	Trout,Whitefish
Cloud Bay	65-04N121-40W	1982	W.Bayha,RRO,Fort Franklin	2300	0	-	Trout,Whitefish
Jupiter Bay	65-19N121-33W	1982	W.Bayha,RRO,Fort Franklin	2300	0	-	Trout,Whitefish
AREA:GJOA HAVEN							
Mangles Bay	67-28N95-25W	1980	Joint Study,DFO,DEDT	2948	1095	116	Arctic charr
Tern Lake	67-48N97-02W	1980	Joint Study,DFO,DEDT	2948	600	140	Arctic charr
Hayes River	67-18N95-02W	1982	Joint Study,DFO,DEDT	3000	2470	202	Arctic charr
Kingark River	68-01N94-50W	1980	Joint Study,DFO,DEDT	2948	388	63	Arctic charr
AREA:HOLMAN ISLAND							
Prince Albert Sound	70-37N117-09W	1982	N.Cournoyer,IDC,Inuvik	1350	1350	131	Arctic charr
Prince Albert Sound	70-37N117-09W	1983	I.Aleekuk,HTA,Holman Island	1350	896	137	Arctic charr

Table 1. (cont'd).

Water Body	Geographic Coordinates	Year	Permittee	Quota (kg)	Harvest (kg)	Number Sampled	Species
AREA:IGLOOLIK							
Ajaqutalik Lake	68-23N82-33W	1984	J.Stevenson,RRO,Igloolik	454	261	60	Arctic charr
AREA:LAKE HARBOUR							
Unnamed Lake (Wight Inlet)	62-22N68-23W	1985	J.Noble,RRO,Frobisher Bay	1000	1000	100	Arctic charr
AREA:PELLY BAY							
Sports River "Tourist"	68-40N90-30W	1980	Joint Study,DFO,DEDT	2948	285	60	Arctic charr
AREA:PANGNIRTUNG							
Ikaluit Lake	65-02N67-07W	1979	J.Noble,RRO,Pangnirtung	908	797	100	Arctic charr
Ikaluit Lake	65-02N67-07W	1982	J.Noble,RRO,Pangnirtung	1500	1500	-	Arctic charr
Opingivik Lake	65-14N67-22W	1979	J.Noble,RRO,Pangnirtung	1361	628	100	Arctic charr
Opingivik Lake	65-14N67-22W	1981	J.Noble,RRO,Pangnirtung	907	628	-	Arctic charr
Unnamed Lake (Iyaravung)	66-43N67-48W	1980	J.Noble,RRO,Pangnirtung	1363	1327	100	Arctic charr
Unnamed Lake (Iyaravung)	66-43N67-48W	1979	J.Noble,RRO,Pangnirtung	1363	1327	100	Arctic charr
Unnamed Lake (Iyaravung)	66-43N67-48W	1981	J.Noble,RRO,Pangnirtung	907	1268	100	Arctic charr
Unnamed Lake (Iyaravung)	66-43N67-48W	1982	J.Noble,RRO,Pangnirtung	2000	1268	-	Arctic charr
Unnamed Lake (Iyaravung)	66-43N67-48W	1984	W.Fillatre,RRO,Pangnirtung	1360	1350	-	Arctic charr
Unnamed Lake (Ikpit)	65-26N67-38W	1984	W.Fillatre,RRO,Pangnirtung	500	215	74	Arctic charr
Unnamed Lake	65-17N64-05W	1985	W.Fillatre,RRO,Pangnirtung	900	476	100	Arctic charr
Unnamed Lake (Ptarmigan Fiord)	64-35N66-22W	1982	B.Kovic,RRO,Pangnirtung	454	908	92	Arctic charr
Unnamed Lake (Ptarmigan Fiord)	64-35N66-22W	1983	J.Noble,RRO,Pangnirtung	1000	1088	100	Arctic charr
Oka'lik Bay	64-02N65-15W	1983	J.Noble,RRO,Pangnirtung	250	84	-	Arctic charr
Unnamed Fiord(Cumberland Sound Area)	65-43N64-51W	1983	J.Noble,RRO,Pangnirtung	250	109	-	Arctic charr
Unnamed Lake(Kangerk Fiord)	66-27N67-27W	1984	W.Fillatre,RRO,Pangnirtung	500	0	0	Arctic charr
Unnamed Lake(Kekertelung Island)	66-19N66-41W	1984	W.Fillatre,RRO,Pangnirtung	500	2	1	Arctic charr
Unnamed Lake	66-43N67-54W	1985	W.Fillatre,RRO,Pangnirtung	454	0	0	Arctic charr
Unnamed Lake	65-05N63-42W	1985	W.Fillatre,RRO,Pangnirtung	900	275	100	Arctic charr
Unnamed Lake	65-13N64-02W	1985	W.Fillatre,RRO,Pangnirtung	900	0	0	Arctic charr
AREA:POND INLET							
Unnamed Lakes (Beta River)	72-17N81-27W	1982	W.Spencer,RRO,Pond Inlet	454	51	19	Arctic charr
Keel River	71-12N75-07W	1982	W.Spencer,RRO,Pond Inlet	1000	308	112	Arctic charr
Unnamed Lake (Tay Sound)	71-47N78-42W	1981	W.Spencer,RRO,Pond Inlet	454	156	82	Arctic charr
Unnamed Lake	71-57N80-27W	1983	S.Ageeagok,DFO,Pond Inlet	500	0	0	Arctic charr
AREA:SPENCE BAY							
Netsilik Lake	69-15N93-05W	1984	L.Jones,RRO,Spence Bay	750	3	5	Arctic charr
Netsilik River	69-22N93-20W	1983	J.Bailey,RRO,Spence Bay	1360	1399	299	Arctic charr
Crooked Lake (Prince of Wales Island)	72-40N98-50W	1982	J.C.Stevenson,RRO,Resolute	454	22	13	Arctic charr
Crooked Lake (Prince of Wales Island)	72-40N98-50W	1982	J.C.Stevenson,RRO,Resolute	454	11	32	Least cisco
Netsilik Lake	69-15N93-05W	1984	L.Jones,RRO,Spence Bay	750	718	302	Lake trout
Netsilik Lake	69-15N93-05W	1984	L.Jones,RRO,Spence Bay	750	967	488	Lake whitefish
Crooked Lake (Prince of Wales Island)	72-40N98-50W	1982	J.C.Stevenson,RRO,Resolute	454	20	13	Least cisco

RRO = Renewable Resource Officers,Dept. of Renewable Resources,GNWT
FO = Fishery Officers,DFO
HTA = Hunters and Trappers Association
IDC = Inuvialuit Development Corporation
TO = Tourism Officer,Dept. of Economic Development and Tourism,GNWT
DEDT=Dept. of Economic Development and Tourism,GNWT

Table 2. Test fishery results for Arctic charr from Magda River (Arctic Bay area), 20 April 1980.

PRODUCTION

Quota	Harvest
1 814 kg	791 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
N/A	139	25	75.9	N/A	551.21

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b\ (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	41	-4.2873	2.7408	2.4698-3.0118	0.89
Female	58	-5.3561	2.1211	1.7371-2.5051	0.98
Total	99	-4.7196	2.8941	2.6667-3.1215	0.92

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
13-20	63	0.29	0.99	0.25	0.75

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 3. Biological data by age group for Arctic charr taken from Magda River (Arctic Bay area), 20 April, 1980.

AGE (YR)	MALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	% FEMALE
9	1	3	533	-	1500	-	0.99	1	2	539	-	1450	-	0.93	2	2	536	4.2	1475	35	0.96	50
10	2	5	545	36.8	1625	247	1.00	-	-	-	-	-	-	-	2	2	545	36.8	1625	247	1.00	-
11	5	13	572	34.3	1900	386	1.00	2	4	611	29.0	2250	354	0.98	7	8	583	35.7	2000	386	1.00	29
12	5	13	596	73.0	2280	928	1.03	8	16	592	59.1	2138	587	1.01	13	15	594	61.8	2192	702	1.02	62
13	9	23	634	62.5	2667	813	1.02	6	12	610	42.7	2283	623	0.99	15	17	624	55.1	2513	744	1.01	40
14	7	18	633	66.5	2579	884	0.99	12	24	636	28.4	2517	542	0.97	19	22	635	44.4	2539	664	0.98	63
15	3	8	709	35.4	3083	486	0.86	5	10	612	36.8	2320	311	1.01	8	9	648	60.5	2606	528	0.95	63
16	-	-	-	-	-	-	-	3	6	641	29.7	2600	522	0.98	3	3	641	29.7	2600	522	0.98	-
17	3	8	699	85.6	3450	1250	0.98	5	10	690	49.3	3110	728	0.94	8	9	693	59.2	3238	883	0.95	63
18	1	3	625	-	2150	-	0.88	4	8	606	63.0	2188	1077	0.93	5	6	610	55.2	2180	933	0.92	80
19	1	3	601	-	1950	-	0.90	1	2	578	-	1600	-	0.83	2	2	590	16.3	1775	247	0.86	50
20	1	3	713	-	3500	-	0.97	2	4	620	59.4	2125	742	0.87	3	3	651	68.2	2583	952	0.90	67
24	1	3	757	-	3150	-	0.73	-	-	-	-	-	-	-	1	1	757	-	3150	-	0.73	-
TOTAL	39							49							88							
MEAN			629	73.5	2514	860	0.98			622	50.1	2378	648	0.97			625	61.3	2438	748	0.97	56
MEAN AGE	14.2																					

Table 4. Biological data by length interval for Arctic charr taken from Magda River (Arctic Bay area), 20 April, 1980.

LENGTH INTERVAL (MM)	MALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	% FEMALE
450	-	-	-	-	-	-	1	2	492	1150	-	0.97	1	1	492	1150	-	0.97	-
500	7	17	532	1500	96	0.99	2	3	537	1475	35	0.95	9	9	533	1494	85	0.99	22
550	7	17	571	1907	197	1.02	15	26	581	1900	300	0.97	22	22	578	1902	267	0.98	68
600	9	22	616	2317	277	0.99	23	40	625	2330	305	0.95	32	32	622	2327	293	0.96	72
650	8	20	665	2731	352	0.93	14	24	671	2975	421	0.98	22	22	669	2886	407	0.96	64
700	8	20	720	3644	310	0.98	2	3	711	3400	566	0.95	10	10	718	3595	348	0.97	20
750	2	5	768	3925	1096	0.86	1	2	751	4300	-	1.02	3	3	762	4050	805	0.91	33
TOTAL	41						58						99						
MEAN			631	2526	842	0.98			624	2396	639	0.97			627	2449	729	0.97	59

Table 5. Test fishery results for Arctic charr from an unnamed lake (71-12 N, 87-22 W) (Arctic Bay area), 11 April 1980.

PRODUCTION

Quota	Harvest
680 kg	609 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
N/A	139	25	67.2	N/A	217.8

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b\ (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	60	-5.1445	3.0470	2.7686-3.3254	0.94
Female	40	-4.8564	2.9357	2.2611-3.6103	0.82
Total	100	-5.5188	3.1747	2.9183-3.4311	0.93

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
18-24	51	0.49	0.97	0.39	0.61

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 6. Biological data by age group for Arctic charr taken from an unnamed lake (71-12N,87-22W)(Arctic Bay area), 11 April,1980.

AGE (YR)	MALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	% FEMALE
13	4	7	642	38.7	2625	413	0.99	-	-	-	-	-	-	-	4	5	642	38.7	2625	413	0.99	-
14	2	4	683	7.8	3075	177	0.97	1	3	699	-	3700	-	1.08	3	3	688	11.0	3283	382	1.01	33
15	5	9	711	52.8	3580	1112	0.97	1	3	636	-	2600	-	1.01	6	7	698	56.2	3417	1072	0.98	17
16	7	13	717	79.4	3707	1127	0.97	4	12	669	49.1	2675	681	0.88	11	13	700	71.5	3332	1083	0.94	36
17	6	11	719	75.3	3817	1144	1.01	6	18	642	51.5	2625	550	0.98	12	14	681	73.5	3221	1058	0.99	50
18	10	18	755	30.0	4300	593	1.00	9	27	668	33.6	2728	466	0.91	19	22	714	54.2	3555	961	0.96	47
19	10	18	730	44.7	3800	864	0.96	6	18	684	57.1	2883	652	0.89	16	18	713	53.0	3456	894	0.94	38
20	5	9	775	80.2	4810	1638	1.00	1	3	717	-	4150	-	1.13	6	7	765	75.6	4700	1489	1.02	17
21	4	7	757	64.7	4438	820	1.02	2	6	723	44.5	3875	813	1.02	6	7	746	56.8	4250	787	1.02	33
22	-	-	-	-	-	-	-	1	3	671	-	2200	-	0.73	1	1	671	-	2200	-	0.73	-
23	-	-	-	-	-	-	-	1	3	648	-	2250	-	0.83	1	1	648	-	2250	-	0.83	-
24	1	2	792	-	3800	-	0.76	1	3	681	-	2300	-	0.73	2	2	737	78.5	3050	1061	0.75	50
27	1	2	724	-	3650	-	0.96	-	-	-	-	-	-	-	1	1	724	-	3650	-	0.96	-
TOTAL	55							33							88							
MEAN			729	62.2	3885	1037	0.98			671	44.7	2826	653	0.92			707	62.7	3488	1044	0.96	38
MEAN AGE	17.9																					

Table 7. Biological data by length interval for Arctic charr taken from an unnamed lake (71-12N,87-22W)(Arctic Bay area), 11 April,1980.

LENGTH INTERVAL (MM)	MALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	% FEMALE
500	1	2	544	1600	-	0.99	-	-	-	-	-	-	1	1	544	1600	-	0.99	-
550	1	2	598	2350	-	1.10	2	5	569	1800	71	0.98	3	3	578	1983	321	1.02	67
600	4	7	623	2375	275	0.98	11	28	636	2373	282	0.92	15	15	633	2373	270	0.94	73
650	14	23	677	2946	294	0.95	18	45	678	2817	459	0.90	32	32	678	2873	395	0.92	56
700	11	18	730	3764	389	0.97	8	20	722	3544	420	0.94	19	19	726	3671	406	0.96	42
750	25	42	770	4550	431	1.00	1	3	754	4450	-	1.04	26	26	770	4546	423	1.00	4
800	3	5	811	5333	161	1.00	-	-	-	-	-	-	3	3	811	5333	161	1.00	-
850	1	2	886	7050	-	1.01	-	-	-	-	-	-	1	1	886	7050	-	1.01	-
TOTAL	60						40						100						
MEAN			729	3882	1041	0.98			672	2830	655	0.92			706	3461	1041	0.96	40

Table 8. Test fishery results for Arctic charr from an unnamed lake (72-29 N, 84-35 W) (Arctic Bay area), 16-18 December 1984.

PRODUCTION

Quota	Harvest
680 kg	540 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
145	139	25	34.5	101	374

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b\ (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	60	-4.6599	2.8957	2.6554-3.1360	0.95
Female	39	-3.9679	2.6444	2.1554-3.1334	0.87
Total	99	-4.9052	2.9804	2.8290-3.1318	0.97

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
15-19	51	0.53	0.99	0.41	0.59

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Note: Harvest calculated by multiplying total no. of charr caught by mean round weight per charr (145 x 3.7).

Table 9. Biological data by age group for Arctic charr taken from an unnamed lake (72-29N,84-35W)(Arctic Bay area), 16-18 December,1984.

AGE	MALES							FEMALES							COMBINED							
			LENGTH(MM)		WEIGHT(G)					LENGTH(MM)		WEIGHT(G)					LENGTH(MM)		WEIGHT(G)			%
(YR)	N	%	MEAN	SD	MEAN	SD	K	N	%	MEAN	SD	MEAN	SD	K	N	%	MEAN	SD	MEAN	SD	K	FEMALE
10	-	-	-	-	-	-	-	1	3	590	-	2100	-	1.02	1	1	590	-	2100	-	1.02	-
11	-	-	-	-	-	-	-	3	9	623	15.3	2617	284	1.08	3	3	623	15.3	2617	284	1.08	-
12	2	4	730	99.0	4350	1909	1.08	6	19	608	24.8	2433	172	1.09	8	9	639	70.8	2913	1153	1.08	75
13	2	4	730	42.4	3975	247	1.03	7	22	626	22.3	2671	316	1.09	9	10	649	52.1	2961	643	1.07	78
14	16	29	709	36.9	3953	636	1.10	5	16	668	14.8	3400	322	1.14	21	24	699	37.1	3821	618	1.11	24
15	15	27	731	32.7	4323	612	1.10	5	16	672	29.5	3210	175	1.07	20	23	717	40.8	4045	726	1.09	25
16	11	20	722	38.4	4200	697	1.11	2	6	640	14.1	2850	283	1.09	13	15	709	46.8	3992	818	1.11	15
17	2	4	770	84.9	5000	1485	1.08	2	6	645	7.1	3025	318	1.13	4	5	708	87.3	4013	1438	1.10	50
18	4	7	720	45.5	4088	853	1.08	1	3	650	-	2850	-	1.04	5	6	706	50.3	3840	923	1.07	20
19	2	4	685	63.6	3850	849	1.19	-	-	-	-	-	-	-	2	2	685	63.6	3850	849	1.19	-
20	1	2	840	-	6600	-	1.11	-	-	-	-	-	-	-	1	1	840	-	6600	-	1.11	-
TOTAL	55							32							87							
MEAN			724	44.0	4211	790	1.10			638	31.6	2841	434	1.09			692	57.5	3707	949	1.10	37
MEAN AGE	14.6																					

Table 10. Biological data by length interval for Arctic charr taken from an unnamed lake (72-29N,84-35W)(Arctic Bay area), 16-18 December,1984.

LENGTH INTERVAL	MALES						FEMALES						COMBINED					
			LENGTH(MM)	WEIGHT(G)					LENGTH(MM)	WEIGHT(G)					LENGTH(MM)	WEIGHT(G)			%
(MM)	N	%	MEAN	MEAN	SD	K	N	%	MEAN	MEAN	SD	K	N	%	MEAN	MEAN	SD	K	FEMALE
550	-	-	-	-	-	-	5	13	582	2190	74	1.11	5	5	582	2190	74	1.11	-
600	3	5	640	3083	176	1.18	19	49	625	2621	200	1.07	22	22	627	2684	252	1.09	86
650	10	17	680	3520	449	1.12	14	36	664	3257	253	1.11	24	24	670	3367	364	1.12	58
700	30	50	719	4082	358	1.10	1	3	710	3050	-	0.85	31	31	718	4048	398	1.09	3
750	12	20	765	4871	373	1.09	-	-	-	-	-	-	12	12	765	4871	373	1.09	-
800	4	7	818	6000	438	1.10	-	-	-	-	-	-	4	4	818	6000	438	1.10	-
850	1	2	890	7800	-	1.11	-	-	-	-	-	-	1	1	890	7800	-	1.11	-
TOTAL	60						39						99						
MEAN			727	4286	896	1.10			635	2805	430	1.09			691	3703	1041	1.10	39

Table 11. Test fishery results for Arctic charr from Jungersen River (Arctic Bay area), 10-26 November 1984.

PRODUCTION

Quota	Harvest
680 kg	470 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
121	139	25	71.1	41	160

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	53	-5.9459	3.3400	2.8900-3.7899	0.90
Female	46	-4.2759	2.7513	2.4061-3.0965	0.92
Total	99	-5.1577	3.0657	2.8693-3.2621	0.95

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
14-17	28	0.60	0.95	0.45	0.55

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Note: Harvest calculated by multiplying total no. of charr caught by mean round weight per charr (121 x 3.9).

Table 12. Biological data by age group for Arctic charr taken from Jungersen River (Arctic Bay area), 10-26 November, 1984.

AGE (YR)	MALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	% FEMALE
7	-	-	-	-	-	-	-	1	3	560	-	2100	-	1.20	1	1	560	-	2100	-	1.20	-
9	-	-	-	-	-	-	-	1	3	565	-	2000	-	1.11	1	1	565	-	2000	-	1.11	-
10	-	-	-	-	-	-	-	7	21	606	27.9	2371	278	1.06	7	10	606	27.9	2371	278	1.06	-
11	-	-	-	-	-	-	-	3	9	605	42.7	2333	161	1.07	3	4	605	42.7	2333	161	1.07	-
12	5	15	726	51.3	4120	1071	1.06	6	18	615	36.1	2617	528	1.11	11	16	665	71.1	3300	1102	1.09	55
13	3	9	718	34.0	3867	945	1.03	6	18	665	43.2	3242	575	1.09	9	13	683	46.6	3450	726	1.07	67
14	11	33	765	47.2	5082	1030	1.12	4	12	646	22.9	2725	357	1.01	15	22	733	68.3	4453	1396	1.09	27
15	7	21	795	24.0	5400	987	1.07	3	9	683	40.7	3867	679	1.20	10	15	762	60.5	4940	1140	1.11	30
16	5	15	751	71.2	4900	1588	1.12	3	9	657	37.9	3133	839	1.09	8	12	716	75.4	4238	1574	1.11	38
17	1	3	725	-	3800	-	1.00	-	-	-	-	-	-	-	1	1	725	-	3800	-	1.00	-
23	1	3	825	-	6900	-	1.23	-	-	-	-	-	-	-	1	1	825	-	6900	-	1.23	-
TOTAL	33							34							67							
MEAN			760	51.4	4882	1205	1.09			631	45.1	2787	662	1.09			695	80.4	3819	1427	1.09	51
MEAN AGE	13.4																					

Table 13. Biological data by length interval for Arctic charr taken from Jungersen River (Arctic Bay area), 10-26 November, 1984.

LENGTH INTERVAL (MM)	MALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	% FEMALE
550	-	-	-	-	-	-	8	17	570	2094	140	1.13	8	8	570	2094	140	1.13	-
600	-	-	-	-	-	-	15	33	624	2557	284	1.05	15	15	624	2557	284	1.05	-
650	9	17	668	3061	298	1.03	14	30	668	3114	396	1.04	23	23	668	3093	354	1.04	61
700	10	19	728	4285	498	1.11	7	15	718	3936	445	1.07	17	17	724	4141	495	1.09	41
750	23	43	777	5046	699	1.07	2	4	768	4725	530	1.04	25	25	776	5020	684	1.07	8
800	11	21	817	6200	700	1.13	-	-	-	-	-	-	11	11	817	6200	700	1.13	-
TOTAL	53						46						99						
MEAN			758	4805	1172	1.08			648	2950	767	1.06			707	3943	1365	1.08	46

Table 14. Test fishery results for Arctic charr from an unnamed lake (Read Island) (Cambridge Bay area), 10-16 October 1983.

PRODUCTION

Quota	Harvest
1 000 kg	421 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
666	139	-	460.9	34.7	131.6

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b\ (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	65	-3.4546	2.4730	1.9486-2.9974	0.77
Female	46	-1.7011	1.8413	1.3195-2.3631	0.73
Total	111	-3.3850	2.4436	2.0985-2.7887	0.80

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
14-17	25	0.65	0.99	0.48	0.52

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 15. Biological data by age group for Arctic charr taken from an unnamed lake (Read Island)(Cambridge Bay area), 10-16 October, 1983.

AGE (YR)	MALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	% FEMALE
9	-	-	-	-	-	-	-	1	3	740	-	2900	-	0.72	1	1	740	-	2900	-	0.72	-
10	3	6	677	20.8	3400	436	1.09	6	15	625	18.7	2667	446	1.09	9	10	642	31.5	2911	553	1.09	67
11	3	6	723	51.3	4433	723	1.18	9	23	660	64.0	2967	482	1.04	12	13	676	65.4	3333	839	1.07	75
12	16	31	703	37.7	3994	880	1.14	6	15	670	51.0	3133	659	1.04	22	24	694	43.2	3759	900	1.11	27
13	13	25	728	26.5	4085	467	1.06	9	23	684	44.2	3400	430	1.07	22	24	710	40.2	3805	560	1.07	41
14	6	12	757	22.5	4633	582	1.07	6	15	690	25.3	3717	605	1.13	12	13	723	41.6	4175	741	1.10	50
15	4	8	718	26.3	4200	469	1.14	2	5	745	49.5	3650	212	0.90	6	7	727	33.3	4017	471	1.06	33
16	4	8	735	30.0	4450	656	1.13	1	3	750	-	4200	-	1.00	5	5	738	26.8	4400	579	1.10	20
17	1	2	680	-	2700	-	0.86	-	-	-	-	-	-	-	1	1	680	-	2700	-	0.86	-
18	1	2	850	-	5900	-	0.96	-	-	-	-	-	-	-	1	1	850	-	5900	-	0.96	-
TOTAL	51							40							91							
MEAN			721	40.4	4147	756	1.10			675	52.6	3220	600	1.05			701	51.4	3740	829	1.08	44
MEAN AGE	12.7																					

Table 16. Biological data by length interval for Arctic charr taken from an unnamed lake (Read Island)(Cambridge Bay area), 10-16 October, 1983.

LENGTH INTERVAL (MM)	MALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	% FEMALE
600	2	3	635	3000	707	1.18	15	33	621	2633	261	1.10	17	15	622	2676	325	1.11	88
650	13	20	676	3438	355	1.11	15	33	675	3487	292	1.14	28	25	675	3464	318	1.12	54
700	32	49	717	4119	478	1.12	11	24	715	3673	580	1.01	43	39	717	4005	536	1.09	26
750	17	26	766	4806	696	1.07	5	11	766	3720	432	0.83	22	20	766	4559	788	1.02	23
850	1	2	850	5900	-	0.96	-	-	-	-	-	-	1	1	850	5900	-	0.96	-
TOTAL	65						46						111						
MEAN			721	4155	755	1.10			677	3278	593	1.06			703	3792	815	1.09	41

Table 17. Test fishery results for Arctic charr from an unnamed lake (Kangishuajuak) (Cape Dorset area), 13 October, 1980.

PRODUCTION

Quota	Harvest
2 268 kg	101 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
55	139	35	12.2	3.59	6.57

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	33	-3.4157	2.4400	1.9434-2.9366	0.87
Female	19	-3.6601	2.5318	2.2005-2.8631	0.97
Total	54	-3.4878	2.4666	2.1650-2.7682	0.92

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
13-14	25	0.42	1.0	0.34	0.66

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 18. Biological data by age group for Arctic charr taken from an unnamed lake (Kangishuajuak)(Cape Dorset area), 13 October,1980.

AGE (YR)	MALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	% FEMALE
9	-	-	-	-	-	-	-	2	12	440	42.4	1075	318	1.24	2	4	440	42.4	1075	318	1.24	-
10	1	4	570	-	2100	-	1.13	1	6	450	-	1050	-	1.15	2	4	510	84.9	1575	742	1.14	50
11	8	29	534	30.2	1794	299	1.17	1	6	540	-	1750	-	1.11	9	19	534	28.3	1789	280	1.17	11
12	6	21	532	31.3	1783	151	1.21	-	-	-	-	-	-	-	7	15	533	28.7	1764	146	1.19	-
13	9	32	554	30.5	1872	243	1.10	6	35	542	17.2	1817	194	1.14	16	34	549	25.2	1841	215	1.11	40
14	4	14	578	43.5	2113	572	1.08	5	29	536	28.8	1830	192	1.19	9	19	554	40.0	1956	404	1.14	56
15	-	-	-	-	-	-	-	2	12	610	56.6	2425	318	1.08	2	4	610	56.6	2425	318	1.08	-
TOTAL	28							17							47							
MEAN			548	34.4	1873	309	1.14			531	53.8	1756	426	1.16			541	42.0	1822	351	1.14	38
MEAN AGE	12.4																					

Table 19. Biological data by length interval for Arctic charr taken from an unnamed lake (Kangishuajuak)(Cape Dorset area), 13 October,1980.

LENGTH INTERVAL (MM)	MALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	% FEMALE
400	-	-	-	-	-	-	1	5	410	850	-	1.23	1	2	410	850	-	1.23	-
450	2	6	480	1275	247	1.15	2	11	460	1175	177	1.20	4	7	470	1225	185	1.18	50
500	14	42	525	1686	173	1.17	7	37	523	1729	163	1.21	22	41	525	1698	163	1.18	33
550	13	39	565	1977	190	1.09	7	37	559	1986	135	1.14	21	39	562	1967	176	1.10	35
600	3	9	617	2617	382	1.11	1	5	600	2250	-	1.04	4	7	613	2525	362	1.10	25
650	-	-	-	-	-	-	1	5	650	2650	-	0.96	1	2	650	2650	-	0.96	-
700	1	3	730	3800	-	0.98	-	-	-	-	-	-	1	2	730	3800	-	0.98	-
TOTAL	33						19						54						
MEAN			553	1924	494	1.13			534	1795	421	1.16			546	1869	461	1.14	37

Table 20. Test fishery results for Arctic charr from Amadjuak Lake (Frobisher Bay area), 11 August to 3 September 1980.

PRODUCTION

Quota	Harvest
2 268 kg	875 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
453	139	35	54.3	0.28	0.55

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	190	-5.3521	3.1412	2.9925-3.2899	0.95
Female	92	-5.4390	3.1769	2.9884-3.3654	0.96
Total	405	-5.4008	3.1594	3.0549-3.2639	0.95

Note: 123 sex not recorded.

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
16-25	92	0.29	0.99	0.25	0.75

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 21. Biological data by age group for Arctic charr taken from Amadjuak Lake (Frobisher Bay area), 11 August to 3 September, 1980.

AGE (YR)	MALES N	MALES LENGTH(MM) MEAN	MALES LENGTH(MM) SD	MALES WEIGHT(G) MEAN	MALES WEIGHT(G) SD	MALES K	MALES % MAT	FEMALES N	FEMALES LENGTH(MM) MEAN	FEMALES LENGTH(MM) SD	FEMALES WEIGHT(G) MEAN	FEMALES WEIGHT(G) SD	FEMALES K	FEMALES % MAT	COMBINED N	COMBINED LENGTH(MM) MEAN	COMBINED LENGTH(MM) SD	COMBINED WEIGHT(G) MEAN	COMBINED WEIGHT(G) SD	COMBINED K	COMBINED % MAT
7	-	-	-	-	-	-	-	1	340	-	400	-	1.02	100	1	340	-	400	-	1.02	100
8	-	-	-	-	-	-	-	1	370	-	450	-	0.89	100	1	370	-	450	-	0.89	100
9	1	410	-	700	-	1.02	0	1	390	-	700	-	1.18	100	2	400	14.1	700	0	1.10	50
10	1	470	-	550	-	0.53	0	1	390	-	700	-	1.18	0	2	430	56.6	625	106	0.85	0
11	7	430	86.8	907	598	1.04	71	3	417	58.6	783	247	1.07	67	10	426	76.3	870	505	1.05	70
12	8	424	126.8	1113	1326	1.10	75	3	383	37.9	600	132	1.06	67	11	413	109.1	973	1137	1.09	73
13	8	378	78.5	606	396	1.01	75	10	398	75.5	810	628	1.13	80	17	393	75.6	750	533	1.11	76
14	17	511	141.3	1918	1513	1.23	65	3	423	23.1	733	104	0.96	67	20	498	133.8	1740	1455	1.19	65
15	14	560	145.3	2589	1904	1.22	57	7	440	109.8	1021	863	0.99	86	21	520	143.9	2067	1776	1.14	67
16	19	506	136.3	1787	1797	1.04	58	11	503	133.1	1823	1547	1.12	73	27	496	129.3	1674	1628	1.05	59
17	14	529	131.6	2018	1654	1.10	71	7	466	110.3	1436	1179	1.16	100	20	515	125.6	1883	1523	1.12	80
18	7	507	116.6	1650	1119	1.08	71	2	435	21.2	700	0	0.86	50	9	491	106.1	1439	1056	1.03	67
19	11	595	143.1	2895	1872	1.14	73	4	628	20.6	3350	785	1.34	75	14	603	126.8	3032	1697	1.19	79
20	4	560	192.0	2513	2238	1.06	75	4	580	172.6	2600	1667	1.11	100	7	544	165.2	2293	1802	1.09	86
21	2	650	155.6	4500	1909	1.67	100	1	730	-	4850	-	1.25	100	3	677	119.3	4617	1365	1.53	100
22	1	530	-	1350	-	0.91	0	2	470	113.1	1350	919	1.19	100	3	490	87.2	1350	650	1.10	67
23	3	687	222.8	4583	3450	1.08	67	2	595	176.8	3200	3465	1.12	50	5	650	187.5	4030	3087	1.09	60
24	2	610	212.1	3350	3041	1.24	100	1	690	-	3400	-	1.03	100	3	637	157.0	3367	2150	1.17	100
25	1	750	-	6000	-	1.42	100	-	-	-	-	-	-	-	1	750	-	6000	-	1.42	100
27	1	670	-	3550	-	1.18	100	-	-	-	-	-	-	-	1	670	-	3550	-	1.18	100
28	1	500	-	1300	-	1.04	100	-	-	-	-	-	-	-	1	500	-	1300	-	1.04	100
TOTAL	122							64							179						
MEAN		518	145	2029	1803	1.12			473	123.7	1508	1385	1.10			501	137.9	1828	1678	1.12	
MEAN AGE	15.9																				

Table 22. Biological data by length interval for Arctic charr taken from Amadjuak Lake (Frobisher Bay area), 11 August to 3 September, 1980.

LENGTH INTERVAL (MM)	MALES N	MALES LENGTH(MM) MEAN	MALES WEIGHT(G) MEAN	MALES WEIGHT(G) SD	MALES K	MALES % MAT	FEMALES N	FEMALES LENGTH(MM) MEAN	FEMALES WEIGHT(G) MEAN	FEMALES WEIGHT(G) SD	FEMALES K	FEMALES % MAT	COMBINED N	COMBINED LENGTH(MM) MEAN	COMBINED WEIGHT(G) MEAN	COMBINED WEIGHT(G) SD	COMBINED K	COMBINED % MAT
300	14	321	443	242	1.38	86	5	334	360	96	0.95	100	27	325	493	495	1.45	59
350	26	373	550	111	1.06	54	26	375	571	102	1.08	85	78	375	559	97	1.06	45
400	34	419	778	272	1.06	53	22	415	736	118	1.03	64	80	418	742	200	1.02	39
450	25	463	958	353	0.97	52	7	464	1086	446	1.06	71	48	464	985	317	0.99	38
500	12	521	1417	572	1.00	67	1	540	2000	-	1.27	100	18	521	1356	570	0.96	50
550	18	574	2033	575	1.07	61	9	570	2117	285	1.14	67	45	573	2120	466	1.12	49
600	18	621	2814	484	1.17	83	14	617	2950	452	1.25	93	47	620	2805	489	1.18	57
650	15	670	3657	601	1.22	93	7	664	3179	1199	1.08	71	28	669	3654	967	1.22	68
700	12	719	4846	1008	1.30	75	3	727	5100	477	1.33	67	17	770	4900	950	1.31	59
750	12	767	5329	691	1.18	92	2	755	4950	778	1.15	50	16	764	5344	643	1.20	69
800	9	810	6294	1315	1.18	100	-	-	-	-	-	-	10	809	6315	1242	1.19	90
850	-	-	-	-	-	-	-	-	-	-	-	-	1	850	8000	-	1.30	0
TOTAL	195						96						405					
MEAN		528	2096	1863	1.12			484	1565	1349	1.10			505	1818	1683	1.11	

Table 23. Test fishery results for Arctic charr from Qamanirjuaq Lake (Frobisher Bay area), 20 April to 27 May 1981.

PRODUCTION

Quota	Harvest
Nil	150 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
78	139	25	213.97	8.75	16.45

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b\ (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	64	-5.0178	3.0052	2.6988-3.3116	0.93
Female	14	-5.9018	3.3279	2.5897-5.0661	0.75
Total	78	-5.1623	3.0574	2.7419-3.3729	0.91

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
11-13	40	0.43	0.98	0.35	0.65

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 24. Biological data by age group for Arctic charr taken from Qamanirjuaq Lake (Frobisher Bay area), 20 April to 27 May, 1981.

AGE (YR)	MALES N	MALES LENGTH(MM) MEAN	MALES LENGTH(MM) SD	MALES WEIGHT(G) MEAN	MALES WEIGHT(G) SD	MALES K	MALES % MAT	FEMALES N	FEMALES LENGTH(MM) MEAN	FEMALES LENGTH(MM) SD	FEMALES WEIGHT(G) MEAN	FEMALES WEIGHT(G) SD	FEMALES K	FEMALES % MAT	COMBINED N	COMBINED LENGTH(MM) MEAN	COMBINED LENGTH(MM) SD	COMBINED WEIGHT(G) MEAN	COMBINED WEIGHT(G) SD	COMBINED K	COMBINED % MAT
8	1	520	-	1200	-	0.85	0	-	-	-	-	-	-	-	1	520	-	1200	-	0.85	0
9	2	553	10.6	1600	141	0.95	0	-	-	-	-	-	-	-	2	553	10.6	1600	141	0.95	0
10	7	546	62.1	1729	547	1.03	0	2	550	14.1	1900	141	1.14	0	9	547	54.1	1767	482	1.05	0
11	18	597	36.1	2022	359	0.94	0	6	523	25.0	1450	138	1.01	0	24	578	46.4	1879	404	0.96	0
12	12	575	34.0	1975	391	1.03	0	-	-	-	-	-	-	-	12	575	34.0	1975	391	1.03	0
13	3	585	31.2	1967	252	0.98	0	1	535	-	2000	-	1.31	0	4	573	35.7	1975	206	1.06	0
15	4	578	39.7	1875	250	0.97	0	-	-	-	-	-	-	-	4	578	39.7	1875	250	0.97	0
TOTAL	47							9							56						
MEAN		578	43	1915	396	0.98			531	23.5	1611	271	1.07			570	43.6	1866	393	1.00	
MEAN AGE	11.4																				

Table 25. Biological data by length interval for Arctic charr taken from Qamanirjuaq Lake (Frobisher Bay area), 20 April to 27 May, 1981.

LENGTH INTERVAL (MM)	MALES N	MALES LENGTH(MM) MEAN	MALES WEIGHT(G) MEAN	MALES WEIGHT(G) SD	MALES K	MALES % MAT	FEMALES N	FEMALES LENGTH(MM) MEAN	FEMALES WEIGHT(G) MEAN	FEMALES WEIGHT(G) SD	FEMALES K	FEMALES % MAT	COMBINED N	COMBINED LENGTH(MM) MEAN	COMBINED WEIGHT(G) MEAN	COMBINED WEIGHT(G) SD	COMBINED K	COMBINED % MAT
400	1	425	700	-	0.91	0	-	-	-	-	-	-	1	425	700	-	0.91	0
450	1	495	1400	-	1.15	0	2	480	1100	141	0.99	0	3	485	1200	200	1.05	0
500	10	531	1480	132	0.99	0	8	530	1488	348	0.99	0	18	530	1483	243	0.99	0
550	30	578	1930	186	1.00	0	3	565	1867	231	1.03	0	33	577	1924	187	1.00	0
600	21	617	2338	285	0.99	0	-	-	-	-	-	-	21	617	2338	285	0.99	0
650	2	670	2950	919	0.97	0	-	-	-	-	-	-	2	670	2950	919	0.97	0
TOTAL	65						13						78					
MEAN		583	1997	446	0.99			530	1515	376	1.00			574	1917	469	1.00	

Table 26. Test fishery results for Arctic charr from Hayes River (Gjoa Haven area), 28 August to 11 September 1982.

PRODUCTION

Quota	Harvest
3 000 kg	2 470 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
N/A	139	-	N/A	N/A	33.1

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b\ (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	101	-5.3341	3.1527	2.8240-3.4814	0.89
Female	100	-4.3352	2.7978	2.5182-3.0774	0.89
Total	202	-4.8466	2.9806	2.7812-3.1799	0.90

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
13-18	54	0.39	0.91	0.32	0.68

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 27. Biological data by age group for Arctic charr taken from Hayes River (Gjoa Haven area), 28 August to 11 September, 1982.

AGE (YR)	MALES N	MALES LENGTH(MM) MEAN	MALES LENGTH(MM) SD	MALES WEIGHT(G) MEAN	MALES WEIGHT(G) SD	MALES K	MALES % MAT	FEMALES N	FEMALES LENGTH(MM) MEAN	FEMALES LENGTH(MM) SD	FEMALES WEIGHT(G) MEAN	FEMALES WEIGHT(G) SD	FEMALES K	FEMALES % MAT	COMBINED N	COMBINED LENGTH(MM) MEAN	COMBINED LENGTH(MM) SD	COMBINED WEIGHT(G) MEAN	COMBINED WEIGHT(G) SD	COMBINED K	COMBINED % MAT
10	2	614	55.9	2730	580	1.18	100	5	585	21.6	2586	295	1.29	100	7	593	32.0	2627	345	1.26	100
11	20	635	45.4	3288	936	1.25	100	26	592	33.7	2662	510	1.27	100	47	611	43.9	2932	774	1.26	100
12	30	643	50.5	3463	882	1.28	100	25	601	37.8	2819	628	1.28	100	55	624	49.6	3170	835	1.28	100
13	13	675	45.8	4191	955	1.34	100	10	616	46.7	3055	727	1.28	100	23	649	54.2	3697	1022	1.32	100
14	9	686	36.6	4113	850	1.26	100	2	632	16.3	3055	233	1.21	100	11	676	39.7	3921	876	1.25	100
15	2	741	1.4	5700	1400	1.40	100	3	708	16.5	5003	839	1.40	100	5	721	21.4	5282	994	1.40	100
16	6	718	48.1	4312	1822	1.14	100	3	661	29.6	3560	764	1.22	100	9	699	49.7	4061	1537	1.17	100
17	1	752	-	5810	-	1.37	100	2	708	73.5	4590	382	1.32	100	3	723	57.9	4997	754	1.33	100
18	2	713	40.3	4450	1344	1.21	100	1	745	-	4920	-	1.19	100	3	723	34.1	4607	988	1.20	100
19	1	690	-	3060	-	0.93	100	-	-	-	-	-	-	-	1	690	-	3060	-	0.93	100
21	1	830	-	5900	-	1.03	100	-	-	-	-	-	-	-	1	830	-	5900	-	1.03	100
25	1	718	-	3940	-	1.06	100	-	-	-	-	-	-	-	1	718	-	3940	-	1.06	100
TOTAL	88							77							166						
MEAN		663	57	3767	1119	1.26			611	48.8	2975	813	1.28			639	59.0	3394	1060	1.27	
MEAN AGE	12.6																				

Table 28. Biological data by length interval for Arctic charr taken from Hayes River (Gjoa Haven area), 28 August to 11 September, 1982.

LENGTH INTERVAL (MM)	MALES N	MALES LENGTH(MM) MEAN	MALES WEIGHT(G) MEAN	MALES WEIGHT(G) SD	MALES K	MALES % MAT	FEMALES N	FEMALES LENGTH(MM) MEAN	FEMALES WEIGHT(G) MEAN	FEMALES WEIGHT(G) SD	FEMALES K	FEMALES % MAT	COMBINED N	COMBINED LENGTH(MM) MEAN	COMBINED WEIGHT(G) MEAN	COMBINED WEIGHT(G) SD	COMBINED K	COMBINED % MAT
500	1	505	1210	-	0.94	100	5	544	1984	179	1.23	100	6	538	1855	354	1.18	100
550	15	581	2377	283	1.21	100	36	575	2441	277	1.28	100	52	577	2431	281	1.26	98
600	22	628	3185	357	1.28	100	31	619	3018	390	1.27	100	53	623	3087	382	1.28	100
650	34	676	3876	690	1.26	100	19	667	3908	633	1.31	100	53	672	3888	664	1.28	100
700	20	723	4978	571	1.32	100	6	721	4557	899	1.21	100	26	722	4881	665	1.29	100
750	4	762	5458	862	1.23	100	3	764	4463	678	1.01	100	7	763	5031	899	1.14	100
800	5	821	6966	1371	1.26	100	-	-	-	-	-	-	5	821	6966	1371	1.26	100
TOTAL	101						100						202					
MEAN		669	3910	1299	1.26			619	3064	854	1.27			644	3486	1175	1.27	

Table 29. Test fishery results for Arctic charr from Prince Albert Sound (Holman area), 24-25 August 1982.

PRODUCTION

Quota	Harvest
1 350 kg	N/A

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
168	139	-	19.7	201.6	N/A

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b(\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	57	-6.5111	3.5798	3.0501-4.1095	0.88
Female	73	-3.1475	2.3752	1.9764-2.7740	0.82
Total	131	-4.1939	2.7521	2.4373-3.0669	0.84

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
12-15	107	0.83	0.99	0.56	0.44

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 30. Biological data by age group for Arctic charr taken from Prince Albert Sound (Holman area), 24-25 August, 1982.

AGE (YR)	MALES N	%	LENGTH(MM) MEAN	LENGTH(MM) SD	WEIGHT(G) MEAN	WEIGHT(G) SD	K	FEMALES N	%	LENGTH(MM) MEAN	LENGTH(MM) SD	WEIGHT(G) MEAN	WEIGHT(G) SD	K	COMBINED N	%	LENGTH(MM) MEAN	LENGTH(MM) SD	WEIGHT(G) MEAN	WEIGHT(G) SD	K	% FEMALE
8	-	-	-	-	-	-	-	1	2	520	-	1500	-	1.07	1	1	520	-	1500	-	1.07	-
10	6	11	613	28.0	3058	665	1.31	3	5	590	10.0	2533	252	1.23	9	8	606	25.5	2883	601	1.28	33
11	18	34	637	25.4	3417	699	1.30	17	26	592	31.7	2632	721	1.25	35	29	615	36.2	3036	805	1.28	49
12	16	30	645	47.0	3891	1553	1.42	21	32	614	71.0	3105	935	1.35	37	31	628	63.0	3445	1283	1.38	57
13	11	21	666	35.4	3918	849	1.31	16	25	646	32.0	3728	943	1.37	27	23	654	34.8	3806	894	1.34	59
14	1	2	590	-	2300	-	1.12	5	8	654	38.5	3310	625	1.17	6	5	643	43.2	3142	695	1.16	83
15	1	2	810	-	6500	-	1.22	1	2	680	-	3600	-	1.14	2	2	745	91.9	5050	2051	1.18	50
17	-	-	-	-	-	-	-	1	2	700	-	3500	-	1.02	2	2	735	49.5	3825	460	0.96	-
TOTAL	53							65							119							
MEAN			645	44.7	3660	1149	1.33			619	54.7	3113	927	1.30			632	53.2	3366	1062	1.31	55
MEAN AGE	12.0																					

Table 31. Biological data by length interval Arctic charr taken from Prince Albert Sound (Holman area), 24-25 August, 1982.

LENGTH INTERVAL (MM)	MALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	WEIGHT(G) SD	K	FEMALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	WEIGHT(G) SD	K	COMBINED N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	WEIGHT(G) SD	K	% FEMALE
300	-	-	-	-	-	-	1	1	340	1200	-	3.05	1	1	340	1200	-	3.05	-
500	2	4	520	1550	71	1.11	4	6	523	1925	597	1.35	6	5	522	1800	502	1.27	67
550	4	7	580	2288	307	1.17	11	15	584	2427	211	1.22	15	11	583	2390	237	1.21	73
600	26	46	626	3344	1104	1.35	36	50	619	2983	490	1.26	62	47	622	3135	818	1.30	58
650	17	30	671	4068	418	1.35	16	22	667	4119	694	1.39	34	26	668	4084	554	1.37	48
700	6	11	710	4950	415	1.38	4	6	713	4450	1019	1.22	10	8	711	4750	713	1.32	40
750	1	2	760	6100	-	1.39	-	-	-	-	-	-	2	2	765	5125	1379	1.15	-
800	1	2	810	6500	-	1.22	-	-	-	-	-	-	1	1	810	6500	-	1.22	-
TOTAL	57						72						131						
MEAN			647	3696	1197	1.33			620	3149	908	1.31			633	3399	1071	1.32	56

Table 32. Test fishery results for Arctic charr from Prince Albert Sound (Holman area), 23-25 August 1983.

PRODUCTION

Quota	Harvest
1 350 kg	896 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
Not available					

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male					
Female					
Total	137	-5.9872	3.3835	3.2447-3.5223	0.97

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
13-17	55	0.74	0.98	0.53	0.48

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 33. Biological data by age group for Arctic charr taken from Prince Albert Sound (Holman area), 23-25 August 1983.

AGE (YR)	NO.	PERCENT	FORK LENGTH(MM) MEAN	FORK LENGTH(MM) SD	ROUND WEIGHT(G) MEAN	ROUND WEIGHT(G) SD
9	3	3	472	27.1	1133	189
10	4	4	536	85.2	1888	769
11	21	19	590	51.1	2483	892
12	30	27	622	45.0	3053	776
13	29	26	648	41.0	3407	771
14	17	15	648	47.1	3538	954
15	4	4	678	52.7	4113	1211
16	3	3	636	55.2	3033	764
17	1	1	815	-	6900	-
20	1	1	862	-	7350	-
TOTAL	113					
MEAN			626	65.9	3128	1118
MEAN AGE	12.5					

Table 34. Biological data by length interval for Arctic charr taken from Prince Albert Sound (Holman area), 23-25 August 1983.

LENGTH INTERVAL (MM)	NO.	PERCENT	MEAN FORK LENGTH(MM)	ROUND WEIGHT(G) MEAN	ROUND WEIGHT(G) SD
400	2	1	428	900	141
450	3	2	476	1133	104
500	11	8	527	1673	268
550	19	14	581	2284	242
600	55	40	627	3025	393
650	29	21	672	3895	488
700	16	12	716	4713	632
800	1	1	815	6900	-
850	1	1	862	7350	-
TOTAL	137				
MEAN			629	3182	1121

Table 35. Test fishery results for Arctic charr from Navarana Lake (Igloolik area), March 1983.

PRODUCTION

Quota	Harvest
Nil	N/A

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
160	139	-	-	-	-

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b(\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	-				
Female	-				
Total	110	-4.2473	2.7387	2.3449-3.1325	.97

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
15-18	44	0.43	0.98	0.35	0.65

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 36. Biological data by age group for Arctic charr taken from Narvarana Lake (Igloolik area),March,1983.

AGE (YR)	NO.	PERCENT	FORK LENGTH(MM) MEAN	FORK LENGTH(MM) SD	ROUND WEIGHT(G) MEAN	ROUND WEIGHT(G) SD
11	1	1	610	-	2250	-
12	4	4	605	10.0	2431	512
13	14	15	629	53.1	2730	677
14	20	22	633	39.7	2879	712
15	13	14	642	56.4	2981	613
16	15	16	634	45.5	2797	631
17	10	11	616	95.2	2245	913
18	3	3	620	45.8	2575	566
19	3	3	643	49.3	2800	260
20	4	4	668	69.5	2719	494
21	4	4	645	34.2	2613	836
TOTAL	91					
MEAN			632	53.4	2729	683
MEAN AGE	15.4					

Table 37. Biological data by length interval for Arctic charr taken from Navarana Lake (Igloolik area),March,1983.

LENGTH INTERVAL (MM)	NO.	PERCENT	MEAN FORK LENGTH(MM)	ROUND WEIGHT(G) MEAN	ROUND WEIGHT(G) SD
450	2	2	460	1025	177
500	2	2	510	1025	177
550	12	11	558	1983	475
600	51	46	617	2600	402
650	31	28	664	3000	534
700	9	8	713	3894	634
750	3	3	767	3475	130
TOTAL	110				
MEAN			631	2718	728

Table 38. Test fishery results for Arctic charr from Ajaqutalik River (Igloolik area), 25-28 August 1984.

PRODUCTION

Quota	Harvest
454 kg	261 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
60	139	25	78.2	18.4	80.0

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	36	-4.8114	2.9842	2.8325-3.1159	0.99
Female	24	-4.1820	2.7490	2.3885-3.1095	0.96
Total	60	-4.6930	2.9385	2.7880-3.0890	0.98

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
15-17	21	0.56	0.99	0.43	0.57

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 39. Biological data by age group for Arctic charr taken from Ajaqutalik River (Igloolik area), 25-28 August, 1984.

AGE (YR)	MALES N	MALES LENGTH(MM) MEAN	MALES LENGTH(MM) SD	MALES WEIGHT(G) MEAN	MALES WEIGHT(G) SD	MALES K	MALES % MAT	FEMALES N	FEMALES LENGTH(MM) MEAN	FEMALES LENGTH(MM) SD	FEMALES WEIGHT(G) MEAN	FEMALES WEIGHT(G) SD	FEMALES K	FEMALES % MAT	COMBINED N	COMBINED LENGTH(MM) MEAN	COMBINED LENGTH(MM) SD	COMBINED WEIGHT(G) MEAN	COMBINED WEIGHT(G) SD	COMBINED K	COMBINED % MAT
7	1	400	-	750	-	1.17	100	-	-	-	-	-	-	-	1	400	-	750	-	1.17	100
8	-	-	-	-	-	-	-	1	320	-	450	-	1.37	0	1	320	-	450	-	1.37	0
9	3	413	76.4	1167	611	1.52	67	1	525	-	2200	-	1.52	100	4	441	83.7	1425	718	1.52	75
10	-	-	-	-	-	-	-	2	580	148.5	2450	1061	1.29	100	2	580	148.5	2450	1061	1.29	100
12	2	453	109.6	1475	1167	1.39	50	1	440	-	1150	-	1.35	100	3	448	77.8	1367	846	1.38	67
13	2	680	14.1	4350	71	1.39	100	2	570	7.1	2800	566	1.51	100	4	625	64.2	3575	954	1.45	100
14	4	745	71.9	5800	1523	1.38	100	7	704	55.1	4657	1409	1.31	100	11	719	61.7	5073	1490	1.34	100
15	4	770	62.8	6600	1679	1.42	100	4	670	24.2	3863	867	1.27	100	8	720	69.3	5231	1916	1.34	100
16	10	726	56.1	5420	1069	1.41	100	-	-	-	-	-	-	-	10	726	56.1	5420	1069	1.41	100
17	3	798	47.5	7100	1217	1.39	100	-	-	-	-	-	-	-	3	798	47.5	7100	1217	1.39	100
21	1	855	-	7600	-	1.22	100	-	-	-	-	-	-	-	1	855	-	7600	-	1.22	100
TOTAL	30							18							48						
MEAN		682	146	4953	2298	1.40			622	118.9	3464	1630	1.34			660	138.7	4395	2179	1.38	
MEAN AGE	13.9																				

Table 40. Biological data by length interval for Arctic charr taken from Ajaqutalik River (Igloolik area), 25-28 August, 1984.

LENGTH INTERVAL (MM)	MALES N	MALES LENGTH(MM) MEAN	MALES WEIGHT(G) MEAN	MALES WEIGHT(G) SD	MALES K	MALES % MAT	FEMALES N	FEMALES LENGTH(MM) MEAN	FEMALES WEIGHT(G) MEAN	FEMALES WEIGHT(G) SD	FEMALES K	FEMALES % MAT	COMBINED N	COMBINED LENGTH(MM) MEAN	COMBINED WEIGHT(G) MEAN	COMBINED WEIGHT(G) SD	COMBINED K	COMBINED % MAT
300	1	330	500	-	1.39	0	1	320	450	-	1.37	0	2	325	475	35	1.38	0
350	1	375	650	-	1.23	0	-	-	-	-	-	-	1	375	650	-	1.23	0
400	2	415	1025	389	1.40	100	1	440	1150	-	1.35	100	3	423	1067	284	1.39	100
450	1	480	1700	-	1.54	100	2	468	1675	35	1.64	100	3	472	1683	29	1.61	100
500	1	530	2300	-	1.54	100	1	525	2200	-	1.52	100	2	528	2250	71	1.53	100
550	-	-	-	-	-	-	3	568	2567	569	1.39	100	3	568	2567	569	1.39	100
600	3	622	3500	700	1.45	100	5	619	2970	694	1.25	100	8	620	3169	700	1.33	100
650	6	678	4500	283	1.44	100	6	683	4200	636	1.32	100	12	680	4350	495	1.38	100
700	7	727	5257	513	1.37	100	3	717	4400	1039	1.19	100	10	724	5000	766	1.31	100
750	6	767	6200	482	1.37	100	2	773	6100	1556	1.31	100	8	768	6175	717	1.36	100
800	7	823	7786	339	1.40	100	-	-	-	-	-	-	7	823	7786	339	1.40	100
850	1	855	7600	-	1.22	100	-	-	-	-	-	-	1	855	7600	-	1.22	100
TOTAL	36						24						60					
MEAN		688	5022	2219	1.40			617	3346	1542	1.34			660	4352	2129	1.37	

Table 41. Test fishery results for Arctic charr from an unnamed lake (Wigh Inlet) (Lake Harbour area), 10-13 January 1985.

PRODUCTION

Quota	Harvest
1 000 kg	281 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
100	139	-	136.25	18	50.6

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b\ (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	57	-2.9057	2.2781	2.0932-2.4630	0.96
Female	43	-2.5430	2.1445	1.8472-2.4418	0.92
Total	100	-2.8616	2.2612	2.1128-2.4096	0.95

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
14-17	36	0.65	0.99	0.48	0.52

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 42. Biological data by age group for Arctic charr taken from an unnamed lake (Wigh Inlet)(Lake Harbour area), 10-13 January,1985.

AGE (YR)	MALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	% FEMALE
7	1	2	360	-	900	-	1.93	-	-	-	-	-	-	-	1	1	360	-	900	-	1.93	-
9	1	2	440	-	1000	-	1.17	-	-	-	-	-	-	-	1	1	440	-	1000	-	1.17	-
10	1	2	465	-	1700	-	1.69	2	6	450	70.7	1375	318	1.54	3	4	455	50.7	1483	293	1.59	67
11	3	7	618	55.8	2883	553	1.22	6	19	574	41.1	2392	453	1.26	9	12	589	48.1	2556	515	1.24	67
12	6	14	584	75.1	2708	797	1.34	3	10	592	14.4	2567	231	1.24	9	12	587	59.9	2661	644	1.31	33
13	8	18	633	26.9	3056	495	1.20	8	26	590	40.4	2594	500	1.26	16	21	611	39.7	2825	537	1.23	50
14	10	23	644	34.4	3075	472	1.15	6	19	553	37.8	2283	458	1.34	16	21	610	56.7	2778	600	1.22	38
15	7	16	672	34.6	3643	573	1.19	6	19	603	53.5	2658	832	1.18	13	17	640	55.6	3188	845	1.19	46
16	3	7	700	40.0	3567	861	1.03	-	-	-	-	-	-	-	3	4	700	40.0	3567	861	1.03	-
17	3	7	658	29.3	3367	301	1.18	-	-	-	-	-	-	-	3	4	658	29.3	3367	301	1.18	-
18	1	2	755	-	4450	-	1.03	-	-	-	-	-	-	-	1	1	755	-	4450	-	1.03	-
TOTAL	44							31							75							
MEAN			629	77.5	3056	808	1.22			573	54.1	2426	590	1.27			606	73.7	2795	786	1.24	41
MEAN AGE	13.3																					

Table 43. Biological data by length interval for Arctic charr taken from an unnamed lake (Wigh Inlet)(Lake Harbour area), 10-13 January,1985.

LENGTH INTERVAL (MM)	MALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	% FEMALE
350	1	2	360	900	-	1.93	-	-	-	-	-	-	1	1	360	900	-	1.93	-
400	1	2	440	1000	-	1.17	1	2	400	1150	-	1.80	2	2	420	1075	106	1.49	50
450	2	4	473	1750	71	1.66	1	2	490	1700	-	1.44	3	3	478	1733	58	1.59	33
500	2	4	518	1750	71	1.26	7	16	528	1893	172	1.29	9	9	526	1861	164	1.28	78
550	4	7	574	2500	163	1.33	15	35	573	2380	276	1.26	19	19	573	2405	257	1.28	79
600	20	35	630	2973	352	1.19	16	37	617	2828	293	1.21	36	36	624	2908	331	1.20	44
650	18	32	662	3319	252	1.14	2	5	685	3400	778	1.06	20	20	664	3328	299	1.14	10
700	8	14	715	3956	469	1.08	1	2	710	3300	-	0.92	9	9	714	3883	490	1.06	11
750	1	2	755	4450	-	1.03	-	-	-	-	-	-	1	1	755	4450	-	1.03	-
TOTAL	57						43						100						
MEAN			633	3056	754	1.20			584	2492	543	1.24			612	2814	725	1.22	43

Table 44. Test fishery results for Arctic charr from Ikaluit Lake (Pangnirtung area), 14 March 1980.

PRODUCTION

Quota	Harvest
907 kg	797 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
100	139	25	54.4	44.1	114.1

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b(\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	64	-3.7768	2.5727	2.1581-2.9873	0.96
Female	36	-3.3948	2.4352	2.0119-2.8585	0.90
Total	100	-3.6885	2.5413	2.3677-2.7149	0.95

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
14-17	48	0.24	0.93	0.21	0.79

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 45. Biological data by age group for Arctic charr taken from Ikaluit Lake (Pangnirtung area), 14 March, 1980.

AGE (YR)	MALES N	%	LENGTH(MM) MEAN	LENGTH(MM) SD	WEIGHT(G) MEAN	WEIGHT(G) SD	K	FEMALES N	%	LENGTH(MM) MEAN	LENGTH(MM) SD	WEIGHT(G) MEAN	WEIGHT(G) SD	K	COMBINED N	%	LENGTH(MM) MEAN	LENGTH(MM) SD	WEIGHT(G) MEAN	WEIGHT(G) SD	K	% FEMALE
8	1	2	350	-	600	-	1.40	1	4	390	-	800	-	1.35	2	2	370	28.3	700	141	1.37	50
10	2	4	508	130.8	1600	1061	1.14	-	-	-	-	-	-	-	2	2	508	130.8	1600	1061	1.14	-
11	7	13	531	78.6	1764	752	1.12	2	7	538	81.3	2125	884	1.33	9	11	533	73.9	1844	740	1.17	22
12	6	11	578	88.9	2233	838	1.11	4	15	563	84.2	1938	750	1.05	10	12	572	82.6	2115	775	1.09	40
13	2	4	633	10.6	2600	71	1.03	5	19	566	12.9	2020	241	1.11	7	9	585	34.4	2186	346	1.09	71
14	11	20	635	69.6	2827	793	1.08	6	22	563	33.1	2033	273	1.14	17	21	610	68.1	2547	755	1.10	35
15	12	22	650	79.3	3200	876	1.18	4	15	615	5.8	2475	290	1.06	16	20	641	69.7	3019	828	1.15	25
16	3	5	668	10.4	3017	275	1.01	3	11	582	46.5	2567	580	1.31	6	7	625	56.2	2792	475	1.16	50
17	8	15	687	59.6	3294	977	1.00	1	4	710	-	3450	-	0.96	9	11	689	56.3	3311	915	0.99	11
18	3	5	705	37.7	3683	1255	1.03	1	4	640	-	2250	-	0.86	4	5	689	44.8	3325	1251	0.98	25
TOTAL	55							27							82							
MEAN			622	94.3	2740	1020	1.10			573	63.9	2163	582	1.13			606	88.2	2550	936	1.11	33
MEAN AGE	14.0																					

Table 46. Biological data by length interval for Arctic charr taken from Ikaluit Lake (Pangnirtung area), 14 March, 1980.

LENGTH INTERVAL (MM)	MALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	WEIGHT(G) SD	K	FEMALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	WEIGHT(G) SD	K	COMBINED N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	WEIGHT(G) SD	K	% FEMALE
350	1	2	350	600	-	1.40	1	3	390	800	-	1.35	2	2	370	700	141	1.37	50
400	3	5	422	867	29	1.16	1	3	445	1000	-	1.13	4	4	428	900	71	1.15	25
450	3	5	477	1583	666	1.46	1	3	480	1500	-	1.36	4	4	478	1563	545	1.43	25
500	2	3	533	1750	71	1.16	2	6	518	1725	35	1.25	4	4	525	1738	48	1.20	50
550	10	16	576	2075	134	1.09	17	47	569	2106	354	1.14	27	27	571	2094	289	1.12	63
600	14	22	619	2571	317	1.08	11	31	622	2532	323	1.05	25	25	620	2554	314	1.07	44
650	17	27	671	3032	347	1.00	2	6	660	3075	1167	1.08	19	19	670	3037	427	1.01	11
700	8	13	723	4006	342	1.06	1	3	710	3450	-	0.96	9	9	722	3944	369	1.05	11
750	6	9	763	4483	579	1.01	-	-	-	-	-	-	6	6	763	4483	579	1.01	-
TOTAL	64						36						100						
MEAN			630	2792	1016	1.08			580	2222	614	1.12			612	2587	930	1.10	36

Table 47. Test fishery results for Arctic charr from Opingivik Lake (Pangnirtung area), 15 April 1980.

PRODUCTION

Quota	Harvest
907 kg	628 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
100	139	25	57.8	41.5	105.9

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b\ (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	58	-5.1948	3.0716	2.8778-3.2654	0.97
Female	41	-4.2133	2.7172	2.3952-3.0392	0.94
Total	100	-4.9382	2.9797	2.8248-3.1346	0.97

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
15-18	36	0.19	0.89	0.17	0.83

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 48. Biological data by age group for Arctic charr taken from Opingivik Lake (Pangnirtung area), 15 April, 1980.

AGE (YR)	MALES N	MALES LENGTH(MM) MEAN	MALES LENGTH(MM) SD	MALES WEIGHT(G) MEAN	MALES WEIGHT(G) SD	MALES K	MALES % MAT	FEMALES N	FEMALES LENGTH(MM) MEAN	FEMALES LENGTH(MM) SD	FEMALES WEIGHT(G) MEAN	FEMALES WEIGHT(G) SD	FEMALES K	FEMALES % MAT	COMBINED N	COMBINED LENGTH(MM) MEAN	COMBINED LENGTH(MM) SD	COMBINED WEIGHT(G) MEAN	COMBINED WEIGHT(G) SD	COMBINED K	COMBINED % MAT
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	375	-	500	-	0.95	0
11	3	552	97.0	1767	797	0.99	100	1	475	-	1150	-	1.07	0	4	533	88.0	1613	720	1.01	67
12	5	553	66.2	1650	588	0.94	80	3	538	59.7	1800	520	1.13	33	8	548	59.8	1706	530	1.01	63
13	4	623	102.7	2913	1542	1.14	100	7	566	109.3	2193	1212	1.09	75	11	586	105.6	2455	1314	1.11	83
14	8	568	73.0	2025	920	1.05	57	7	575	98.2	1807	590	0.95	67	15	571	82.6	1923	765	1.00	60
15	4	530	123.7	1638	1093	0.97	33	3	583	5.8	1933	189	0.98	100	7	553	92.1	1764	797	0.97	60
16	8	679	56.7	3381	946	1.05	100	5	610	26.2	2410	494	1.05	100	13	653	57.8	3008	919	1.05	100
17	4	740	26.8	4338	999	1.07	100	4	645	40.8	2638	450	0.99	100	8	693	60.0	3488	1158	1.03	100
18	7	729	30.7	3964	781	1.01	100	1	540	-	1500	-	0.95	0	8	706	72.7	3656	1132	1.01	86
20	2	738	10.6	4425	177	1.10	100	1	655	-	2200	-	0.78	100	3	710	48.2	3683	1291	1.00	100
TOTAL	45							32							78						
MEAN		634	102	2866	1341	1.03			583	78.4	2083	741	1.02			610	99.1	2514	1204	1.03	
MEAN AGE	14.8																				

Table 49. Biological data by length interval for Arctic charr taken from Opingivik Lake (Pangnirtung area), 15 April, 1980.

LENGTH INTERVAL (MM)	MALES N	MALES LENGTH(MM) MEAN	MALES WEIGHT(G) MEAN	MALES WEIGHT(G) SD	MALES K	MALES % MAT	FEMALES N	FEMALES LENGTH(MM) MEAN	FEMALES WEIGHT(G) MEAN	FEMALES WEIGHT(G) SD	FEMALES K	FEMALES % MAT	COMBINED N	COMBINED LENGTH(MM) MEAN	COMBINED WEIGHT(G) MEAN	COMBINED WEIGHT(G) SD	COMBINED K	COMBINED % MAT
350	1	385	500	-	0.88	0	1	375	500	-	0.95	0	3	378	500	0	0.92	0
400	2	440	900	71	1.06	0	-	-	-	-	-	-	2	440	900	71	1.06	0
450	3	473	1100	250	1.02	33	4	468	1125	119	1.10	0	7	470	1114	168	1.07	14
500	5	523	1420	214	0.99	20	7	518	1471	64	1.06	29	12	520	1450	140	1.03	25
550	6	560	1767	268	1.01	67	10	578	2035	184	1.05	50	16	571	1934	249	1.04	56
600	12	613	2342	344	1.01	75	7	616	2371	380	1.01	71	19	614	2353	347	1.01	74
650	7	684	3314	485	1.04	86	12	669	2875	665	0.96	67	19	674	3037	629	0.99	74
700	16	726	3937	601	1.03	100	-	-	-	-	-	-	16	726	3937	601	1.03	100
750	5	768	4930	409	1.09	80	-	-	-	-	-	-	5	768	4930	409	1.09	80
850	1	850	5250	-	0.85	100	-	-	-	-	-	-	1	850	5250	-	0.85	100
TOTAL	58						41						100					
MEAN		640	2888	1324	1.02			585	2116	758	1.02			615	2547	1195	1.02	

Table 50. Test fishery results for Arctic charr from an unnamed lake (Iyaravung) (Pangnirtung area), 28 February 1980.

PRODUCTION

Quota	Harvest
1 361 kg	1 327 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
100	139	60	41.7	57.6	119.4

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	65	-3.6890	2.5400	2.3030-2.7770	0.94
Female	35	-4.0571	2.6799	2.1953-3.1645	0.89
Total	100	-3.5497	2.4911	2.2937-2.6885	0.93

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
15-18	25	0.46	0.98	0.37	0.63

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 51. Biological data by age group for Arctic charr taken from an unnamed lake (Iyaravung)(Pangnirtung area), 28 February,1980.

AGE (YR)	MALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	% FEMALE
10	1	2	580	-	2250	-	1.15	-	-	-	-	-	-	-	1	1	580	-	2250	-	1.15	-
11	6	13	546	45.8	1800	381	1.10	3	14	475	80.5	1333	520	1.21	9	13	522	64.7	1644	461	1.14	33
12	6	13	543	35.2	1900	392	1.17	4	18	536	27.5	1875	263	1.21	10	15	541	30.9	1890	330	1.19	40
13	3	7	568	7.6	2100	173	1.14	1	5	525	-	1500	-	1.04	4	6	558	22.5	1950	332	1.12	25
14	11	24	581	30.8	2255	433	1.14	6	27	543	27.5	1817	284	1.13	17	25	568	34.6	2100	435	1.14	35
15	6	13	586	45.8	2217	422	1.10	2	9	560	28.3	2000	0	1.15	8	12	579	41.9	2163	370	1.11	25
16	5	11	586	29.9	2060	288	1.02	4	18	549	16.5	1875	150	1.14	9	13	569	30.6	1978	244	1.07	44
17	3	7	652	55.3	2867	679	1.02	1	5	530	-	1750	-	1.18	4	6	621	75.8	2588	787	1.06	25
18	3	7	650	26.5	2667	289	0.97	1	5	540	-	1750	-	1.11	4	6	623	59.1	2438	515	1.00	25
19	1	2	660	-	3000	-	1.04	-	-	-	-	-	-	-	1	1	660	-	3000	-	1.04	-
TOTAL	45							22							67							
MEAN			583	47.6	2194	477	1.10			533	40.2	1768	314	1.16			567	50.7	2054	473	1.12	33
MEAN AGE	14.1																					

Table 52. Biological data by length interval for Arctic charr taken from an unnamed lake (Iyaravung)(Pangnirtung area), 28 February,1980.

LENGTH INTERVAL (MM)	MALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	% FEMALE
350	-	-	-	-	-	-	1	3	385	750	-	1.31	1	1	385	750	-	1.31	-
450	1	2	480	1250	-	1.13	1	3	495	1500	-	1.24	2	2	488	1375	177	1.18	50
500	13	20	533	1714	179	1.13	19	54	526	1729	290	1.18	32	32	529	1723	248	1.16	59
550	28	43	572	2089	152	1.12	13	37	561	2031	139	1.15	41	41	568	2071	149	1.13	32
600	19	29	622	2542	224	1.05	1	3	600	2750	-	1.27	20	20	621	2553	223	1.06	5
650	3	5	663	3083	144	1.06	-	-	-	-	-	-	3	3	663	3083	144	1.06	-
700	1	2	710	3500	-	0.98	-	-	-	-	-	-	1	1	710	3500	-	0.98	-
TOTAL	65						35						100						
MEAN			584	2201	442	1.10			536	1836	367	1.18			567	2073	451	1.13	35

Table 53. Test fishery results for Arctic charr from an unnamed lake (Iyaravung) (Pangnirtung area), 17 February 1981.

PRODUCTION

Quota	Harvest
907 kg	1 268 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
112	139	32	128.0	21.0	96.9

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b\ (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	66	-4.8480	2.9509	2.6719-3.2299	0.94
Female	34	-5.4970	3.1940	2.6288-3.7592	0.90
Total	100	-4.8770	2.9642	2.7181-3.2103	0.92

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
14-18	35	0.31	0.98	0.27	0.73

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 54. Biological data by age group for Arctic charr taken from an unnamed lake (Iyaravung)(Pangnirtung area), 17 February, 1981.

AGE (YR)	MALES N	MALES LENGTH(MM) MEAN	MALES LENGTH(MM) SD	MALES WEIGHT(G) MEAN	MALES WEIGHT(G) SD	MALES K	MALES % MAT	FEMALES N	FEMALES LENGTH(MM) MEAN	FEMALES LENGTH(MM) SD	FEMALES WEIGHT(G) MEAN	FEMALES WEIGHT(G) SD	FEMALES K	FEMALES % MAT	COMBINED N	COMBINED LENGTH(MM) MEAN	COMBINED LENGTH(MM) SD	COMBINED WEIGHT(G) MEAN	COMBINED WEIGHT(G) SD	COMBINED K	COMBINED % MAT
6	-	-	-	-	-	-	-	1	430	-	830	-	1.04	0	1	430	-	830	-	1.04	0
8	1	430	-	800	-	1.01	0	-	-	-	-	-	-	-	1	430	-	800	-	1.01	0
10	2	451	32.5	950	141	1.04	50	3	450	47.7	1037	358	1.11	67	5	450	37.4	1002	267	1.08	60
11	-	-	-	-	-	-	-	1	574	-	2000	-	1.06	100	1	574	-	2000	-	1.06	100
12	8	589	73.4	2190	794	1.03	88	4	582	7.7	2055	372	1.04	75	12	587	58.8	2145	666	1.03	83
13	8	597	55.2	2403	606	1.11	88	5	548	20.5	1688	670	1.00	100	13	578	50.2	2128	704	1.06	92
14	5	614	21.8	2724	159	1.18	100	5	577	17.3	2200	183	1.14	100	10	596	26.8	2462	320	1.16	100
15	8	612	28.1	2451	419	1.06	100	2	564	23.3	1990	156	1.11	100	10	602	33.1	2359	421	1.07	100
16	5	607	16.8	2234	152	1.00	100	-	-	-	-	-	-	-	5	607	16.8	2234	152	1.00	100
17	7	618	33.4	2603	530	1.09	100	1	587	-	2330	-	1.15	100	8	614	32.9	2569	500	1.10	100
18	1	667	-	2350	-	0.79	100	1	578	-	2150	-	1.11	100	2	623	62.9	2250	141	0.95	100
19	2	648	13.4	2635	940	0.96	100	-	-	-	-	-	-	-	2	648	13.4	2635	940	0.96	100
TOTAL	47							23							70						
MEAN		598	60	2334	643	1.06			548	53.7	1829	561	1.08			582	62.0	2168	658	1.07	
MEAN AGE	13.8																				

Table 55. Biological data by length interval for Arctic charr taken from an unnamed lake (Iyaravung)(Pangnirtung area), 17 February, 1981.

LENGTH INTERVAL (MM)	MALES N	MALES LENGTH(MM) MEAN	MALES WEIGHT(G) MEAN	MALES WEIGHT(G) SD	MALES K	MALES % MAT	FEMALES N	FEMALES LENGTH(MM) MEAN	FEMALES WEIGHT(G) MEAN	FEMALES WEIGHT(G) SD	FEMALES K	FEMALES % MAT	COMBINED N	COMBINED LENGTH(MM) MEAN	COMBINED WEIGHT(G) MEAN	COMBINED WEIGHT(G) SD	COMBINED K	COMBINED % MAT
400	2	429	825	35	1.05	0	3	425	830	0	1.08	33	5	427	828	18	1.07	20
450	3	466	1020	147	1.00	67	-	-	-	-	-	-	3	466	1020	147	1.00	67
500	2	519	1315	35	0.95	0	7	533	1553	398	1.02	100	9	530	1500	361	1.01	78
550	16	582	2139	190	1.09	100	20	578	2160	250	1.12	95	36	580	2151	223	1.10	97
600	33	622	2541	320	1.06	100	4	622	2775	367	1.15	100	37	622	2566	328	1.07	100
650	10	673	3029	398	0.99	100	-	-	-	-	-	-	10	673	3029	398	0.99	100
TOTAL	66						34						100					
MEAN		604	2359	606	1.05			561	1990	576	1.10			589	2234	619	1.07	

Table 56. Test fishery results for Arctic charr from an unnamed lake (Ikpit Bay) (Pangnirtung area), 28 March 1984.

PRODUCTION

Quota	Harvest
500 kg	215 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
74	139	50	120	14.8	43.0

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b\ (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	63	-3.3934	2.4363	2.0699-2.8027	0.86
Female	11	-4.4605	2.8007	0.8486-4.7528	0.73
Total	74	-3.8225	2.5864	2.1611-3.0117	0.82

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
15-18	18	0.58	0.98	0.43	0.57

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 57. Biological data by age group for Arctic charr taken from an unnamed lake (Ikpit Bay)(Pangnirtung area), 28 March, 1984.

AGE (YR)	MALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	% FEMALE
12	2	5	640	42.4	2600	707	0.98	-	-	-	-	-	-	-	2	4	640	42.4	2600	707	0.98	-
13	5	12	618	34.9	2640	434	1.11	1	20	660	-	1900	-	0.66	6	13	625	35.6	2517	492	1.04	17
14	17	40	646	26.4	2929	528	1.08	3	60	620	40.0	2000	0	0.85	20	43	643	29.2	2790	592	1.04	15
15	10	24	656	33.4	3080	421	1.09	-	-	-	-	-	-	-	10	21	656	33.4	3080	421	1.09	-
16	4	10	670	27.1	2975	618	0.98	-	-	-	-	-	-	-	4	9	670	27.1	2975	618	0.98	-
17	2	5	650	42.4	3000	707	1.08	-	-	-	-	-	-	-	2	4	650	42.4	3000	707	1.08	-
18	-	-	-	-	-	-	-	1	20	560	-	2300	-	1.31	1	2	560	-	2300	-	1.31	-
19	1	2	710	-	3800	-	1.06	-	-	-	-	-	-	-	1	2	710	-	3800	-	1.06	-
21	1	2	770	-	4500	-	0.99	-	-	-	-	-	-	-	1	2	770	-	4500	-	0.99	-
TOTAL	42							5							47							
MEAN			652	37.4	2981	562	1.07			616	45.6	2040	152	0.91			648	39.4	2881	608	1.05	11
MEAN AGE	14.6																					

Table 58. Biological data by length interval for Arctic charr taken from an unnamed lake (Ikpit Bay)(Pangnirtung area), 28 March, 1984.

LENGTH INTERVAL (MM)	MALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	% FEMALE
500	1	2	540	1900	-	1.21	-	-	-	-	-	-	1	1	540	1900	-	1.21	-
550	3	5	580	2200	100	1.13	3	27	570	2000	300	1.08	6	8	575	2100	228	1.11	50
600	24	38	625	2604	311	1.06	2	18	620	2100	141	0.88	26	35	625	2565	330	1.05	8
650	25	40	671	3179	280	1.05	4	36	660	2425	574	0.85	29	39	669	3071	419	1.02	14
700	8	13	710	3538	457	0.99	2	18	715	4300	424	1.18	10	14	711	3690	534	1.03	20
750	2	3	765	4300	283	0.96	-	-	-	-	-	-	2	3	765	4300	283	0.96	-
TOTAL	63						11						74						
MEAN			655	2971	556	1.05			638	2591	941	0.98			653	2914	636	1.04	15

Table 59. Test fishery results for Arctic charr from an unnamed lake (65-17 N, 64-05 W) (Pangnirtung area), 8 March 1985.

PRODUCTION

Quota	Harvest
900 kg	476 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
128	139	N/A	22.8	129	477

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b\ (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	69	-4.0860	2.6719	2.4641-2.8797	0.95
Female	31	-2.4796	2.0862	1.5275-2.6449	0.82
Total	100	-4.1905	2.7018	2.4778-2.9258	0.92

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
17-23	33	0.22	0.85	0.20	0.80

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 60. Biological data by age group for Arctic charr taken from an unnamed lake (65-17N,64-05W)(Pangnirtung area), 8 March,1985.

AGE (YR)	MALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	% FEMALE
															1	2	430	-	700	-	0.88	-
10	1	2	430	-	700	-	0.88	-	-	-	-	-	-	-	1	2	615	-	2200	-	0.95	-
11	-	-	-	-	-	-	-	1	7	615	-	2200	-	0.95	2	3	545	35.4	1700	424	1.04	50
13	1	2	520	-	1400	-	1.00	1	7	570	-	2000	-	1.08	5	8	640	43.2	2960	643	1.13	20
14	4	9	648	45.9	3125	608	1.16	1	7	610	-	2300	-	1.01	7	12	708	40.4	3429	446	0.96	14
15	6	13	710	44.0	3467	476	0.97	1	7	700	-	3200	-	0.93	8	14	674	50.2	2988	569	0.97	13
16	7	16	669	51.2	2957	608	0.98	1	7	715	-	3200	-	0.88	7	12	700	50.7	3300	755	0.95	43
17	4	9	720	31.9	3675	613	0.98	3	21	673	65.6	2800	700	0.91	3	5	733	25.2	3233	764	0.81	33
18	2	4	748	3.5	3650	354	0.87	1	7	704	-	2400	-	0.69	6	10	755	63.4	4150	1414	0.93	17
19	5	11	770	57.8	4520	1213	0.97	1	7	680	-	2300	-	0.73	10	17	803	57.0	4710	1000	0.90	20
20	8	18	810	61.4	4975	922	0.93	2	14	773	24.0	3650	495	0.79	4	7	794	63.7	4425	954	0.88	25
21	3	7	822	37.5	4933	603	0.87	1	7	710	-	3200	-	0.89	1	2	860	-	5500	-	0.86	-
22	1	2	860	-	5500	-	0.86	-	-	-	-	-	-	-	3	5	787	55.1	3833	702	0.79	33
23	2	4	815	35.4	4200	424	0.79	1	7	730	-	3100	-	0.80	1	2	820	-	5500	-	1.00	-
24	1	2	820	-	5500	-	1.00	-	-	-	-	-	-	-								
TOTAL	45							14							59							
MEAN			732	94.6	3876	1207	0.96			686	63.8	2829	613	0.88			721	90.0	3627	1179	0.94	24
MEAN AGE	17.6																					

Table 61. Biological data by length interval for Arctic charr taken from an unnamed lake (65-17N,64-05W)(Pangnirtung area), 8 March,1985.

LENGTH INTERVAL (MM)	MALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	% FEMALE
													1	1	430	700	-	0.88	-
400	1	1	430	700	-	0.88	-	-	-	-	-	-	1	1	520	1400	-	1.00	-
500	1	1	520	1400	-	1.00	-	-	-	-	-	-	1	1	570	2000	-	1.08	-
550	-	-	-	-	-	-	1	3	570	2000	-	1.08	1	1	620	2490	465	1.05	40
600	6	9	622	2700	502	1.13	4	13	616	2175	96	0.93	10	10	672	2853	255	0.94	32
650	13	19	672	2923	239	0.96	6	19	673	2700	237	0.89	19	19	725	3308	514	0.86	54
700	11	16	731	3655	238	0.93	13	42	720	3015	506	0.81	24	24	769	3900	515	0.86	38
750	10	14	771	4210	273	0.92	6	19	765	3383	387	0.75	16	16	819	5086	692	0.93	5
800	20	29	818	5095	709	0.93	1	3	830	4900	-	0.86	21	21	871	5567	273	0.84	-
850	6	9	871	5567	273	0.84	-	-	-	-	-	-	6	6	905	6600	-	0.89	-
900	1	1	905	6600	-	0.89	-	-	-	-	-	-	1	1					
TOTAL	69						31						100						
MEAN			749	4065	1230	0.94			705	2945	653	0.84			735	3718	1200	0.91	31

Table 62. Test fishery results for Arctic charr from an unnamed lake (Ptarmigan Fiord) (Pangnirtung area), 16 March, 1982.

PRODUCTION

Quota	Harvest
454 kg	908 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
528	139	-	48	258.7	444.9

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	62	-3.7775	2.5632	2.2563-2.8696	0.91
Female	28	-4.4729	2.8105	2.3551-3.2659	0.93
Total	92	-4.2830	2.7420	2.5486-3.9354	0.95

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
13-16	42	0.50	0.97	0.39	0.61

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 63. Biological data by age group for Arctic charr taken from an unnamed lake (Ptarmigan Fiord)(Pangnirtung area), 16 March,1982.

AGE (YR)	MALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	% FEMALE
8	-	-	-	-	-	-	-	1	5	540	-	1500	-	0.95	1	1	540	-	1500	-	0.95	-
9	-	-	-	-	-	-	-	2	9	445	7.1	950	212	1.07	2	3	445	7.1	950	212	1.07	-
10	2	4	525	35.4	1600	141	1.11	4	18	525	12.9	1450	265	1.01	6	8	525	18.7	1500	228	1.05	67
11	4	8	610	53.5	2325	419	1.03	3	14	533	55.1	1633	404	1.07	7	10	577	64.2	2029	528	1.05	43
12	8	16	641	23.0	2663	292	1.01	3	14	593	70.2	2067	651	0.97	13	18	624	40.7	2415	478	0.98	27
13	22	45	625	35.6	2450	476	0.99	1	5	540	-	1500	-	0.95	23	32	621	39.0	2409	505	0.99	4
14	5	10	676	40.4	2800	458	0.90	3	14	600	79.4	2100	755	0.94	8	11	648	65.4	2538	644	0.92	38
15	5	10	652	63.8	2820	779	1.00	4	18	558	44.3	1925	532	1.09	9	12	610	72.5	2422	795	1.04	44
16	1	2	700	-	3500	-	1.02	1	5	570	-	1800	-	0.97	2	3	635	91.9	2650	1202	1.00	50
18	2	4	705	21.2	3600	424	1.04	-	-	-	-	-	-	-	2	3	705	21.2	3600	424	1.04	-
TOTAL	49							22							73							
MEAN			635	49.2	2582	567	1.00			548	59.4	1709	534	1.02			608	65.3	2301	679	1.00	31
MEAN AGE		12.8																				

Table 64. Biological data by length interval for Arctic charr taken from an unnamed lake (Ptarmigan Fiord)(Pangnirtung area), 16 March,1982.

LENGTH INTERVAL (MM)	MALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	% FEMALE
400	-	-	-	-	-	-	1	4	440	800	-	0.94	1	1	440	800	-	0.94	-
450	-	-	-	-	-	-	2	7	460	1150	71	1.18	2	2	460	1150	71	1.18	-
500	2	3	515	1500	0	1.10	13	46	525	1446	185	1.00	15	16	523	1453	173	1.02	87
550	7	11	571	1929	198	1.03	5	18	568	1940	195	1.06	12	13	570	1933	187	1.05	42
600	27	44	626	2504	290	1.02	4	14	613	2325	206	1.01	33	36	622	2448	304	1.01	13
650	16	26	663	2838	429	0.97	3	11	657	2833	153	1.00	19	21	662	2837	395	0.97	16
700	9	15	711	3344	279	0.93	-	-	-	-	-	-	9	10	711	3344	279	0.93	-
750	1	2	760	4500	-	1.03	-	-	-	-	-	-	1	1	760	4500	-	1.03	-
TOTAL	62						28						92						
MEAN			640	2647	587	1.00			551	1764	564	1.03			612	2363	703	1.00	31

Table 65. Test fishery results for Arctic charr from an unnamed lake (Ptarmigan Fiord) (Pangnirtung area), 12 March 1984.

PRODUCTION

Quota	Harvest
1 000 kg	1 088 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
395	139	24	16.0	592.5	1631.7

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b\ (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	78	-3.1171	2.3284	1.8670-2.7898	0.75
Female	22	-4.2024	2.7315	2.3120-3.1510	0.95
Total	100	-3.1870	2.3557	2.0864-2.6250	0.87

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
15-17	53	1.11	0.99	0.67	0.33

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 66. Biological data by age group for Arctic charr taken from an unnamed lake (Ptarmigan Fiord)(Pangnirtung area), 12 March, 1984.

AGE (YR)	MALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	% FEMALE
9	-	-	-	-	-	-	-	1	5	360	-	500	-	1.07	1	1	360	-	500	-	1.07	-
10	-	-	-	-	-	-	-	1	5	530	-	1600	-	1.07	1	1	530	-	1600	-	1.07	-
12	1	1	680	-	3400	-	1.08	3	16	610	26.5	2633	321	1.16	4	5	628	41.1	2825	465	1.14	75
13	5	7	612	52.2	2380	614	1.04	-	-	-	-	-	-	-	5	6	612	52.2	2380	614	1.04	-
14	13	19	666	33.1	2992	395	1.01	8	42	636	56.8	2825	552	1.10	21	24	655	44.8	2929	455	1.05	38
15	34	51	662	38.5	2791	460	0.96	4	21	605	52.6	2575	650	1.16	38	44	656	43.1	2768	477	0.98	11
16	12	18	657	40.5	2950	571	1.03	2	11	555	49.5	2000	0	1.20	14	16	642	54.2	2814	629	1.05	14
17	1	1	680	-	3100	-	0.99	-	-	-	-	-	-	-	1	1	680	-	3100	-	0.99	-
18	1	1	720	-	3600	-	0.96	-	-	-	-	-	-	-	1	1	720	-	3600	-	0.96	-
TOTAL	67							19							86							
MEAN			660	40.4	2854	500	0.99			597	78.9	2468	739	1.13			646	57.2	2769	579	1.02	22
MEAN AGE	14.6																					

Table 67. Biological data by length interval for Arctic charr taken from an unnamed lake (Ptarmigan Fiord)(Pangnirtung area), 12 March, 1984.

LENGTH INTERVAL (MM)	MALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	% FEMALE
350	-	-	-	-	-	-	1	5	360	500	-	1.07	1	1	360	500	-	1.07	-
500	-	-	-	-	-	-	3	14	530	1933	306	1.30	3	3	530	1933	306	1.30	-
550	4	5	568	1800	258	0.99	7	32	577	2229	236	1.16	11	11	574	2073	317	1.10	64
600	22	28	625	2500	324	1.02	6	27	617	2717	392	1.15	28	28	624	2546	344	1.05	21
650	37	47	670	3011	361	1.00	4	18	660	3050	480	1.06	41	41	669	3015	367	1.01	10
700	15	19	712	3193	359	0.89	1	5	740	3500	-	0.86	16	16	714	3213	356	0.89	6
TOTAL	78						22						100						
MEAN			660	2840	493	0.98			594	2450	686	1.14			646	2754	562	1.02	22

Table 68. Test fishery results for Arctic charr from an unnamed lake (65-05 N, 63-42 W) (Pangnirtung area), 25 March 1985.

PRODUCTION

Quota	Harvest
900 kg	275 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
108	139	N/A	25	104	265

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b\ (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	67	-3.8475	2.5773	2.3405-2.8141	0.94
Female	33	-3.4637	2.4354	2.0799-2.7909	0.93
Total	100	-3.8634	2.5815	2.3934-2.7696	0.94

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
18-20	37	0.46	0.94	0.37	0.63

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 69. Biological data by age group for Arctic charr taken from an unnamed lake (65-05N,63-42W)(Pangnirtung area), 25 March,1985.

AGE (YR)	MALES N	MALES %	MALES LENGTH(MM) MEAN	MALES LENGTH(MM) SD	MALES WEIGHT(G) MEAN	MALES WEIGHT(G) SD	MALES K	FEMALES N	FEMALES %	FEMALES LENGTH(MM) MEAN	FEMALES LENGTH(MM) SD	FEMALES WEIGHT(G) MEAN	FEMALES WEIGHT(G) SD	FEMALES K	COMBINED N	COMBINED %	COMBINED LENGTH(MM) MEAN	COMBINED LENGTH(MM) SD	COMBINED WEIGHT(G) MEAN	COMBINED WEIGHT(G) SD	COMBINED K	% FEMALE
12	1	2	554	-	1500	-	0.88	-	-	-	-	-	-	-	1	1	554	-	1500	-	0.88	-
13	5	9	560	56.6	1800	620	0.99	2	8	570	28.3	1850	71	1.00	7	9	563	47.9	1814	508	0.99	29
14	4	7	619	52.7	2325	538	0.97	3	12	623	47.5	2267	231	0.94	7	9	621	46.3	2300	404	0.96	43
15	3	5	635	12.9	2367	58	0.93	2	8	625	7.1	2250	71	0.92	5	6	631	11.1	2320	84	0.93	40
16	7	12	665	61.0	2757	711	0.92	2	8	603	3.5	2100	0	0.96	9	11	651	59.5	2611	681	0.93	22
17	7	12	682	80.2	2814	780	0.88	6	24	607	53.3	2183	538	0.96	13	16	648	77.0	2523	729	0.91	46
18	13	23	684	72.0	3008	809	0.93	6	24	630	57.3	2317	542	0.92	19	23	667	70.8	2789	792	0.93	32
19	8	14	671	53.3	2825	547	0.93	3	12	658	26.4	2367	115	0.83	11	13	668	46.5	2700	508	0.90	27
20	7	12	658	51.8	2614	669	0.90	1	4	625	-	2300	-	0.94	8	10	654	49.3	2575	630	0.91	13
21	2	4	710	14.1	3700	283	1.04	-	-	-	-	-	-	-	2	2	710	14.1	3700	283	1.04	-
TOTAL	57							25							82							
MEAN			657	69.0	2689	753	0.93			620	45.2	2224	382	0.93			645	64.8	2548	694	0.93	30
MEAN AGE	17.0																					

Table 70. Biological data by length interval for Arctic charr taken from an unnamed lake (65-05N,63-42W)(Pangnirtung area), 25 March,1985.

LENGTH INTERVAL (MM)	MALES N	MALES %	MALES LENGTH(MM) MEAN	MALES WEIGHT(G) MEAN	MALES WEIGHT(G) SD	MALES K	FEMALES N	FEMALES %	FEMALES LENGTH(MM) MEAN	FEMALES WEIGHT(G) MEAN	FEMALES WEIGHT(G) SD	FEMALES K	COMBINED N	COMBINED %	COMBINED LENGTH(MM) MEAN	COMBINED WEIGHT(G) MEAN	COMBINED WEIGHT(G) SD	COMBINED K	% FEMALE
500	4	6	524	1350	208	0.94	2	6	518	1150	71	0.83	6	6	522	1283	194	0.90	33
550	5	7	559	1640	114	0.94	6	18	573	1867	151	1.00	11	11	566	1764	175	0.97	55
600	23	34	631	2365	177	0.94	16	48	621	2256	155	0.94	39	39	626	2321	175	0.94	41
650	15	22	670	2780	251	0.93	6	18	668	2517	172	0.84	21	21	669	2705	258	0.90	29
700	13	19	713	3408	236	0.94	2	6	704	2900	141	0.83	15	15	712	3340	285	0.93	13
750	4	6	779	3875	741	0.82	1	3	760	3100	-	0.71	5	5	775	3720	729	0.80	20
800	2	3	805	3700	990	0.71	-	-	-	-	-	-	2	2	805	3700	990	0.71	-
850	1	1	855	4400	-	0.70	-	-	-	-	-	-	1	1	855	4400	-	0.70	-
TOTAL	67						33						100						
MEAN			661	2706	754	0.92			623	2230	430	0.91			649	2549	700	0.92	33

Table 71. Test fishery results for Arctic charr from an unnamed lake (Beta River) (Pond Inlet area), 1-2 June 1982.

PRODUCTION

Quota	Harvest
454 kg	51 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
19	139	30	25.6	17.9	48.2

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	11	-4.4346	2.8054	2.0784-3.5324	0.95
Female	8	-4.2997	2.7518	1.3700-4.1336	0.89
Total	19	-4.4518	2.8092	2.2150-3.4034	0.92

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
insufficient data					

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 72. Biological data by age group for Arctic charr taken from an unnamed lake (Beta River)(Pond Inlet area), 1-2 June, 1982.

AGE (YR)	MALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	% FEMALE
12	2	22	600	14.1	2300	424	1.06	-	-	-	-	-	-	-	2	15	600	14.1	2300	424	1.06	-
13	1	11	590	-	2100	-	1.02	-	-	-	-	-	-	-	1	8	590	-	2100	-	1.02	-
15	3	33	650	0.0	2933	208	1.07	-	-	-	-	-	-	-	3	23	650	0.0	2933	208	1.07	-
16	-	-	-	-	-	-	-	1	25	600	-	2200	-	1.02	1	8	600	-	2200	-	1.02	-
17	-	-	-	-	-	-	-	1	25	670	-	3500	-	1.16	1	8	670	-	3500	-	1.16	-
18	1	11	630	-	2500	-	1.00	-	-	-	-	-	-	-	1	8	630	-	2500	-	1.00	-
19	-	-	-	-	-	-	-	1	25	600	-	2100	-	0.97	1	8	600	-	2100	-	0.97	-
21	1	11	700	-	3700	-	1.08	-	-	-	-	-	-	-	1	8	700	-	3700	-	1.08	-
22	1	11	710	-	3400	-	0.95	-	-	-	-	-	-	-	1	8	710	-	3400	-	0.95	-
24	-	-	-	-	-	-	-	1	25	680	-	3100	-	0.99	1	8	680	-	3100	-	0.99	-
TOTAL	9							4							13							
MEAN			642	42.9	2789	567	1.04			638	43.5	2725	685	1.04			641	41.3	2769	576	1.04	31
MEAN AGE	16.8																					

Table 73. Biological data by length interval for Arctic charr taken from an unnamed lake (Beta River)(Pond Inlet area), 1-2 June, 1982.

LENGTH INTERVAL (MM)	MALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	% FEMALE
550	3	27	590	2133	153	1.04	1	13	580	2200	-	1.13	4	21	588	2150	129	1.06	25
600	2	18	620	2550	71	1.07	3	38	613	2267	208	0.98	5	26	616	2380	217	1.02	60
650	4	36	655	2975	189	1.06	4	50	663	2950	436	1.01	8	42	659	2963	311	1.03	50
700	2	18	705	3550	212	1.01	-	-	-	-	-	-	2	11	705	3550	212	1.01	-
TOTAL	11						8						19						
MEAN			640	2773	539	1.05			634	2600	484	1.01			637	2700	510	1.03	42

Table 74. Test fishery results for Arctic charr from Keel River (Cambridge Fiord) (Pond Inlet area), 19-26 May, 1982.

PRODUCTION

Quota	Harvest
1 000 kg	308 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
115	139	-	224.0	12.3	32.9

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b\ (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	69	-3.6723	2.5261	2.1823-2.8699	0.87
Female	44	-3.7760	2.5671	2.1744-2.9598	0.89
Total	139	-3.6184	2.5084	2.2561-2.7607	0.88

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
14-16	23	0.55	0.99	0.42	0.58
19-21	16	0.65	1.00	0.48	0.52

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 75. Biological data by age group for Arctic charr taken from Keel River (Pond Inlet area), 19-26 May, 1982.

AGE (YR)	MALES N	MALES %	MALES LENGTH(MM) MEAN	MALES LENGTH(MM) SD	MALES WEIGHT(G) MEAN	MALES WEIGHT(G) SD	MALES K	FEMALES N	FEMALES %	FEMALES LENGTH(MM) MEAN	FEMALES LENGTH(MM) SD	FEMALES WEIGHT(G) MEAN	FEMALES WEIGHT(G) SD	FEMALES K	COMBINED N	COMBINED %	COMBINED LENGTH(MM) MEAN	COMBINED LENGTH(MM) SD	COMBINED WEIGHT(G) MEAN	COMBINED WEIGHT(G) SD	COMBINED K	% FEMALE
12	5	9	594	20.7	2140	207	1.02	3	13	543	64.3	1800	608	1.09	8	10	575	46.0	2013	402	1.04	38
13	15	27	616	45.8	2293	246	0.99	6	26	608	34.9	2350	423	1.03	21	27	614	42.3	2310	296	1.01	29
14	8	15	615	22.7	2313	387	0.99	2	9	610	84.9	2500	990	1.07	10	13	614	34.7	2350	481	1.01	20
15	5	9	624	42.8	2440	422	1.00	4	17	610	47.6	2675	732	1.16	9	12	618	42.7	2544	553	1.07	44
16	3	5	690	60.8	3233	651	0.98	1	4	620	-	2600	-	1.09	4	5	673	60.8	3075	618	1.01	25
17	2	4	635	35.4	2350	212	0.92	-	-	-	-	-	-	-	2	3	635	35.4	2350	212	0.92	-
18	6	11	692	56.0	3367	804	1.00	1	4	670	-	3200	-	1.06	7	9	689	51.8	3343	737	1.01	14
19	5	9	706	53.2	3500	903	0.98	2	9	650	0.0	2850	71	1.04	7	9	690	51.3	3314	803	1.00	29
20	4	7	727	45.0	3525	822	0.93	4	17	633	35.0	2500	365	0.99	8	10	680	62.8	3013	804	0.96	50
21	1	2	680	-	2500	-	0.80	-	-	-	-	-	-	-	1	1	680	-	2500	-	0.80	-
22	1	2	690	-	3500	-	1.07	-	-	-	-	-	-	-	1	1	690	-	3500	-	1.07	-
TOTAL	55							23							78							
MEAN			646	58.8	2691	722	0.99			611	49.7	2465	567	1.06			636	58.2	2624	684	1.01	29
MEAN AGE	15.4																					

Table 76. Biological data by length interval for Arctic charr taken from Keel River (Pond Inlet area), 19-26 May, 1982.

LENGTH INTERVAL (MM)	MALES N	MALES %	MALES LENGTH(MM) MEAN	MALES WEIGHT(G) MEAN	MALES WEIGHT(G) SD	MALES K	FEMALES N	FEMALES %	FEMALES LENGTH(MM) MEAN	FEMALES WEIGHT(G) MEAN	FEMALES WEIGHT(G) SD	FEMALES K	COMBINED N	COMBINED %	COMBINED LENGTH(MM) MEAN	COMBINED WEIGHT(G) MEAN	COMBINED WEIGHT(G) SD	COMBINED K	% FEMALE
450	-	-	-	-	-	-	1	2	470	1100	-	1.06	1	1	470	1100	-	1.06	-
550	14	20	585	2050	161	1.03	9	20	578	2056	133	1.07	23	20	582	2052	147	1.04	39
600	24	35	619	2404	233	1.01	16	36	621	2556	237	1.07	40	35	620	2465	243	1.03	40
650	13	19	669	2923	332	0.97	16	36	661	2900	348	1.00	29	26	665	2910	335	0.99	55
700	10	14	717	3850	782	1.04	2	5	720	3450	919	0.92	12	11	717	3783	776	1.02	17
750	8	12	768	3925	798	0.87	-	-	-	-	-	-	8	7	768	3925	798	0.87	-
TOTAL	69						44						113						
MEAN			653	2816	821	1.00			628	2586	517	1.04			643	2727	724	1.01	39

Table 77. Test fishery results for Arctic charr from an unnamed lake (Tay Sound) (Pond Inlet area), 26-28 November 1981.

PRODUCTION

Quota	Harvest
454 kg	156 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
82	139	30	64	33.6	63.9

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b\ (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	48	-4.2909	2.7388	2.4671-3.0105	0.95
Female	34	-2.9955	2.2691	1.6408-2.8974	0.79
Total	82	-3.8885	2.5932	2.3161-2.8703	0.90

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
14-20	25	0.27	0.99	0.24	0.76

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 78. Biological data by age group for Arctic charr taken from an unnamed lake (Tay Sound)(Pond Inlet area), 26-28 November, 1981.

AGE (YR)	MALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	SD	WEIGHT(G) MEAN	SD	K	% FEMALE
10	2	6	450	84.9	900	566	0.91	-	-	-	-	-	-	-	2	4	450	84.9	900	566	0.91	-
11	3	10	503	15.3	1233	153	0.97	3	12	503	47.3	1300	100	1.04	6	11	503	31.4	1267	121	1.00	50
12	6	19	550	81.0	1683	719	0.98	2	8	540	42.4	2100	283	1.34	8	14	548	70.5	1788	647	1.07	25
13	8	26	581	53.1	2013	405	1.03	6	24	538	71.9	1700	687	1.06	14	25	563	63.1	1879	544	1.04	43
14	3	10	585	95.3	2100	781	1.04	1	4	550	-	1400	-	0.84	4	7	576	79.7	1925	727	0.99	25
15	3	10	683	11.5	3167	351	0.99	5	20	588	27.7	1780	390	0.86	8	14	624	54.0	2300	798	0.91	63
16	4	13	655	52.0	2475	597	0.87	2	8	580	70.7	1950	212	1.02	6	11	630	64.2	2300	544	0.92	33
17	1	3	650	-	3100	-	1.13	2	8	610	42.4	2150	212	0.95	3	5	623	37.9	2467	569	1.01	67
18	-	-	-	-	-	-	-	2	8	635	63.6	2500	566	0.97	2	4	635	63.6	2500	566	0.97	-
20	1	3	580	-	2300	-	1.18	1	4	560	-	2900	-	1.65	2	4	570	14.1	2600	424	1.42	50
21	-	-	-	-	-	-	-	1	4	600	-	1900	-	0.88	1	2	600	-	1900	-	0.88	-
TOTAL	31							25							56							
MEAN			581	82.3	2026	769	0.99			565	58.2	1864	541	1.03			574	72.4	1954	676	1.01	45
MEAN AGE		14.0																				

Table 79. Biological data by length interval for Arctic charr taken from an unnamed lake (Tay Sound)(Pond Inlet area), 26-28 November, 1981.

LENGTH INTERVAL (MM)	MALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	% FEMALE
350	1	2	390	500	-	0.84	-	-	-	-	-	-	1	1	390	500	-	0.84	-
450	3	6	487	1133	58	0.98	5	15	466	1100	141	1.10	8	10	474	1113	113	1.06	63
500	17	35	524	1506	219	1.04	6	18	530	1583	248	1.07	23	28	525	1526	224	1.05	26
550	12	25	569	1808	297	0.98	11	32	573	1973	522	1.05	23	28	571	1887	418	1.01	48
600	2	4	625	2550	495	1.04	11	32	615	2082	275	0.89	13	16	617	2154	338	0.91	85
650	11	23	675	2827	341	0.92	1	3	680	2900	-	0.92	12	15	675	2833	326	0.92	8
700	2	4	710	2950	212	0.82	-	-	-	-	-	-	2	2	710	2950	212	0.82	-
TOTAL	48						34						82						
MEAN			577	1944	685	0.98			566	1838	521	1.00			572	1900	621	0.99	41

Table 80. Test fishery results for lake trout from Netsilik Lake (Spence Bay area), 24-29 August 1984.

PRODUCTION

Quota	Harvest
Nil	718 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
303	139	24	144.5	51.7	122

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	177	-4.9363	2.9921	2.8593-3.1249	0.96
Female	124	-4.6806	2.8994	2.7275-2.9399	0.98
Total	303	-4.7944	2.9399	2.8642-3.0156	0.97

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
20-40	134	0.14	0.96	0.13	0.87

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 81. Biological data by age group for lake trout taken from Netsilik Lake (Spence Bay area), 24-29 August, 1984.

AGE (YR)	MALES N	MALES LENGTH(MM) MEAN	MALES LENGTH(MM) SD	MALES WEIGHT(G) MEAN	MALES WEIGHT(G) SD	MALES K	MALES % MAT	FEMALES N	FEMALES LENGTH(MM) MEAN	FEMALES LENGTH(MM) SD	FEMALES WEIGHT(G) MEAN	FEMALES WEIGHT(G) SD	FEMALES K	FEMALES % MAT	COMBINED N	COMBINED LENGTH(MM) MEAN	COMBINED LENGTH(MM) SD	COMBINED WEIGHT(G) MEAN	COMBINED WEIGHT(G) SD	COMBINED K	COMBINED % MAT
14	2	473	10.6	1150	71	1.09	100	1	482	-	1300	-	1.16	100	3	476	9.3	1200	100	1.12	100
15	3	481	17.5	1167	153	1.05	100	2	466	20.5	1125	318	1.10	100	5	475	18.1	1150	194	1.07	100
16	12	484	31.0	1192	82	1.07	100	4	485	39.2	1250	376	1.07	100	16	484	31.8	1206	184	1.07	100
17	14	464	13.3	1168	128	1.17	100	6	477	23.3	1258	213	1.15	100	20	468	17.3	1195	158	1.16	100
18	19	485	30.1	1268	212	1.12	89	3	522	87.4	1617	833	1.07	100	22	490	41.0	1316	346	1.11	91
19	13	477	16.7	1215	145	1.12	100	7	485	31.0	1279	185	1.13	100	20	480	22.2	1238	158	1.12	100
20	10	501	92.0	1545	1077	1.14	100	6	565	93.3	2083	850	1.11	100	16	525	95.0	1747	1005	1.13	100
21	6	484	20.5	1208	124	1.07	100	5	527	52.5	1600	569	1.07	100	12	512	50.5	1479	516	1.07	100
22	3	476	27.5	1133	104	1.05	100	1	590	-	2250	-	1.10	100	4	505	61.1	1413	565	1.06	100
23	8	512	62.1	1588	922	1.11	100	2	645	7.8	2825	35	1.06	100	10	538	78.4	1835	966	1.10	100
24	3	506	44.6	1233	252	0.95	100	2	542	67.2	1950	990	1.17	100	5	520	50.1	1520	656	1.04	100
25	2	646	237.6	4125	3854	1.28	100	1	694	-	3700	-	1.11	100	3	662	170.3	3983	2736	1.22	100
26	1	494	-	1100	-	0.91	100	3	580	39.9	2050	397	1.05	100	4	558	53.8	1813	575	1.01	100
27	2	567	77.8	2050	919	1.08	100	1	600	-	2100	-	0.97	100	3	578	58.2	2067	651	1.05	100
28	-	-	-	-	-	-	-	3	693	168.2	4117	3019	1.11	100	3	693	168.2	4117	3019	1.11	100
29	-	-	-	-	-	-	-	1	691	-	4400	-	1.33	100	1	691	-	4400	-	1.33	100
30	-	-	-	-	-	-	-	5	766	77.7	4980	1333	1.09	100	5	766	77.7	4980	1333	1.09	100
31	-	-	-	-	-	-	-	3	850	75.5	6283	852	1.03	100	3	850	75.5	6283	852	1.03	100
32	-	-	-	-	-	-	-	1	880	-	6000	-	0.88	100	1	880	-	6000	-	0.88	100
34	-	-	-	-	-	-	-	2	731	152.7	5060	2744	1.24	100	2	731	152.7	5060	2744	1.24	100
36	-	-	-	-	-	-	-	1	820	-	9250	-	1.68	100	1	820	-	9250	-	1.68	100
40	1	853	-	5900	-	0.95	100	-	-	-	-	-	-	-	1	853	-	5900	-	0.95	100
44	1	860	-	7900	-	1.24	100	-	-	-	-	-	-	-	1	860	-	7900	-	1.24	100
TOTAL	100							60							161						
MEAN		497	75	1461	1078	1.11			592	135.6	2667	2012	1.11			533	111.2	1917	1598	1.11	
MEAN AGE	20.7																				

Table 82. Biological data by length interval for lake trout taken from Netsilik Lake (Spence Bay area), 24-29 August, 1984.

LENGTH INTERVAL (MM)	MALES						FEMALES						COMBINED					
	LENGTH(MM)		WEIGHT(G)			%	LENGTH(MM)		WEIGHT(G)			%	LENGTH(MM)		WEIGHT(G)			%
	N	MEAN	MEAN	SD	K	MAT	N	MEAN	MEAN	SD	K	MAT	N	MEAN	MEAN	SD	K	MAT
400	1	414	800	-	1.13	100	-	-	-	-	-	-	1	414	800	-	1.13	100
425	9	444	1033	56	1.18	100	5	439	970	104	1.14	100	14	442	1011	79	1.17	100
450	47	463	1132	89	1.14	100	12	460	1113	158	1.14	100	59	462	1128	105	1.14	100
475	59	484	1242	130	1.10	98	25	489	1330	120	1.14	100	85	485	1268	132	1.11	98
500	29	508	1428	184	1.09	93	19	511	1447	144	1.08	100	48	509	1435	168	1.09	96
525	5	538	1580	205	1.02	80	7	538	1757	221	1.13	100	12	538	1683	224	1.08	92
550	6	561	1658	457	0.94	100	6	557	1825	305	1.05	100	12	559	1742	380	1.00	100
575	4	584	2050	187	1.03	100	3	585	2333	284	1.17	100	7	584	2171	260	1.09	100
600	3	615	2550	218	1.10	100	5	617	2564	364	1.09	100	9	615	2552	280	1.09	89
625	2	644	2775	389	1.04	100	6	634	2725	209	1.07	100	8	636	2738	231	1.06	100
650	2	653	3325	742	1.20	100	6	663	3117	573	1.07	83	8	660	3169	568	1.10	88
675	2	689	4000	283	1.23	100	7	688	3557	567	1.09	86	9	688	3656	538	1.12	89
700	1	704	4200	-	1.20	100	2	707	3875	35	1.10	100	3	706	3983	189	1.13	100
725	1	730	4800	-	1.23	100	3	732	4383	284	1.12	100	4	731	4488	312	1.15	100
750	1	760	4600	-	1.05	100	3	764	4767	153	1.07	100	4	763	4725	150	1.06	100
775	1	775	6650	-	1.43	100	1	780	5400	-	1.14	100	2	778	6025	884	1.28	100
800	1	814	6850	-	1.27	100	2	820	7675	2227	1.39	100	3	818	7400	1645	1.35	100
825	-	-	-	-	-	-	2	840	6675	460	1.13	100	2	840	6675	460	1.13	100
850	2	857	8900	1414	1.10	100	3	862	7583	1928	1.18	100	5	860	7310	1581	1.15	100
875	1	897	9450	-	1.31	100	3	884	7283	1158	1.05	100	4	888	7825	1438	1.12	100
925	-	-	-	-	-	-	2	928	9100	2828	1.14	100	2	928	9100	2828	1.14	100
1000	-	-	-	-	-	-	1	1015	9000	-	0.86	100	1	1015	9000	-	0.86	100
1025	-	-	-	-	-	-	1	1049	7350	-	0.64	100	1	1049	7350	-	0.64	100
TOTAL	177						124						303					
MEAN		509	1594	1190	1.11			591	2665	2132	1.11			543	2034	1720	1.11	

Table 83. Test fishery results for lake whitefish from Netsilik Lake (Spence Bay area), 24-29 August 1984.

PRODUCTION

Quota	Harvest
750 kg	967 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
487	139	24	144.5	82.9	164.4

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	330	-6.3661	3.5798	3.4087-3.7509	0.91
Female	150	-6.5629	3.6582	3.3893-3.9271	0.91
Total	487	-6.6248	3.6776	3.5369-3.8183	0.92

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
16-20	104	0.66	0.99	0.48	0.52

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 84. Biological data by age group for lake whitefish taken from Netsilik Lake (Spence Bay area), 24-29 August, 1984.

AGE (YR)	MALES							FEMALES							COMBINED						
		LENGTH(MM)		WEIGHT(G)			%		LENGTH(MM)		WEIGHT(G)			%		LENGTH(MM)		WEIGHT(G)			%
	N	MEAN	SD	MEAN	SD	K	MAT	N	MEAN	SD	MEAN	SD	K	MAT	N	MEAN	SD	MEAN	SD	K	MAT
10	2	340	13.4	375	35	0.96	100	-	-	-	-	-	-	-	2	340	13.4	375	35	0.96	100
11	1	435	-	1300	-	1.58	100	-	-	-	-	-	-	-	1	435	-	1300	-	1.58	100
12	5	437	56.0	1320	522	1.47	100	3	458	17.1	1500	265	1.55	100	8	445	44.7	1388	429	1.50	100
13	8	472	21.6	1638	213	1.55	88	2	511	35.4	2150	283	1.61	100	10	480	27.8	1740	302	1.56	90
14	17	487	19.5	1818	241	1.56	100	4	512	17.3	2213	309	1.64	100	21	492	21.2	1893	293	1.58	100
15	18	494	15.1	1961	219	1.63	100	9	508	13.0	2178	160	1.66	100	27	498	15.8	2033	224	1.64	100
16	23	508	28.4	2076	329	1.57	100	6	514	22.7	2308	433	1.69	100	30	509	26.7	2110	359	1.59	97
17	20	503	10.0	2035	265	1.59	100	13	521	26.0	2569	517	1.80	100	33	510	19.7	2245	461	1.67	100
18	5	485	45.1	2050	122	1.89	100	2	531	0.7	2450	71	1.64	100	7	498	43.0	2164	221	1.82	100
19	-	-	-	-	-	-	-	3	532	24.8	2400	568	1.57	100	3	532	24.8	2400	568	1.57	100
20	1	480	-	1750	-	1.58	100	3	544	31.1	2783	797	1.70	100	4	528	41.0	2525	831	1.67	100
24	-	-	-	-	-	-	-	1	550	-	3400	-	2.04	100	1	550	-	3400	-	2.04	100
TOTAL	100							46							147						
MEAN		489	36	1884	396	1.58			516	27.4	2355	510	1.70			497	35.7	2030	485	1.62	
MEAN AGE	15.5																				

Table 85. Biological data by length interval for lake whitefish taken from Netaitlh Lake (Spence Bay area), 24-29 August, 1984.

LENGTH INTERVAL (MM)	MALES						FEMALES						COMBINED					
		LENGTH(MM)	WEIGHT(G)			%		LENGTH(MM)	WEIGHT(G)			%		LENGTH(MM)	WEIGHT(G)			%
	N	MEAN	MEAN	SD	K	MAT	N	MEAN	MEAN	SD	K	MAT	N	MEAN	MEAN	SD	K	MAT
270	-	-	-	-	-	-	1	277	150	-	0.71	100	1	277	150	-	0.71	100
300	1	306	250	-	0.87	100	-	-	-	-	-	-	1	306	250	-	0.87	100
310	1	318	300	-	0.93	100	-	-	-	-	-	-	2	316	275	35	0.87	50
330	3	333	383	29	1.04	100	-	-	-	-	-	-	3	333	383	29	1.04	100
340	3	345	433	58	1.06	67	1	343	500	-	1.24	100	4	345	450	58	1.10	75
370	1	371	600	-	1.17	100	-	-	-	-	-	-	1	371	600	-	1.17	100
400	1	405	2000	-	3.01	100	-	-	-	-	-	-	1	405	2000	-	3.01	100
420	1	425	1400	-	1.82	100	1	425	1700	-	2.21	100	2	425	1550	212	2.02	100
430	2	434	1300	0	1.60	100	3	433	1250	87	1.54	100	5	433	1270	67	1.56	100
440	6	443	1475	230	1.69	100	1	447	1400	-	1.57	100	7	444	1464	212	1.68	100
450	11	455	1491	130	1.59	91	5	454	1320	205	1.41	100	17	454	1459	187	1.56	88
460	18	464	1650	297	1.65	100	3	462	1700	173	1.73	100	21	464	1657	280	1.66	100
470	31	474	1687	173	1.58	100	7	474	1814	180	1.70	100	38	474	1711	179	1.61	100
480	48	484	1778	210	1.57	100	12	485	2042	200	1.79	100	61	484	1840	241	1.62	98
490	50	494	1884	162	1.56	100	11	492	1927	214	1.61	100	61	494	1892	171	1.57	100
500	63	503	2038	191	1.60	100	23	504	2150	239	1.68	100	89	503	2066	210	1.62	97
510	43	514	2181	212	1.61	100	35	513	2253	218	1.67	100	78	514	2213	216	1.63	100
520	28	523	2218	194	1.55	100	20	523	2298	325	1.61	100	48	523	2251	257	1.57	100
530	11	534	2355	242	1.54	100	14	533	2546	234	1.69	100	25	533	2462	252	1.62	100
540	4	542	2488	214	1.56	100	3	541	2883	301	1.82	100	7	542	2657	313	1.67	100
550	1	557	2700	-	1.56	100	4	552	2863	499	1.70	100	5	553	2830	438	1.68	100
560	2	565	2600	1202	1.45	100	2	560	2950	141	1.68	100	4	562	2775	727	1.56	100
570	-	-	-	-	-	-	2	575	2850	849	1.50	100	2	575	2850	849	1.50	100
580	1	587	2850	-	1.41	100	2	584	3675	318	1.85	100	3	585	3400	527	1.70	100
830	-	-	-	-	-	-	-	-	-	-	-	-	1	833	0	-	0.00	0
TOTAL	330						150						487					
MEAN		491	1901	408	1.57			505	2177	502	1.66			496	1980	470	1.60	

Table 86. Test fishery results for Arctic charr from Netsilik River (Spence Bay area), 31 August to 7 September 1983.

PRODUCTION

Quota	Harvest
1 360 kg	1 398.95 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
724	139	25	351.13	50.7	97.9

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	120	-4.6972	2.9227	2.7614-3.0840	0.95
Female	170	-4.8254	2.9695	2.8691-3.0699	0.98
Total	299	-4.6179	2.8935	2.0393-3.7477	0.97

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
13-17	162	0.79	0.99	0.55	0.45

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 87. Biological data by age group for Arctic charr taken from Netsilik River (Spence Bay area), 31 August to 7 September, 1983.

AGE (YR)	MALES N	MALES LENGTH(MM) MEAN	MALES LENGTH(MM) SD	MALES WEIGHT(G) MEAN	MALES WEIGHT(G) SD	MALES K	MALES % MAT	FEMALES N	FEMALES LENGTH(MM) MEAN	FEMALES LENGTH(MM) SD	FEMALES WEIGHT(G) MEAN	FEMALES WEIGHT(G) SD	FEMALES K	FEMALES % MAT	COMBINED N	COMBINED LENGTH(MM) MEAN	COMBINED LENGTH(MM) SD	COMBINED WEIGHT(G) MEAN	COMBINED WEIGHT(G) SD	COMBINED K	COMBINED % MAT
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	256	-	250	-	1.49	0
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	316	-	500	-	1.58	0
7	5	347	26.6	480	110	1.21	0	4	324	35.1	450	100	1.32	0	11	329	33.0	455	93	1.32	0
8	3	349	32.9	700	132	1.68	0	7	368	52.7	643	305	1.25	43	10	362	46.6	660	258	1.38	30
9	6	414	73.2	983	561	1.31	33	23	416	61.0	976	490	1.28	48	31	412	62.6	948	492	1.28	42
10	6	418	43.3	942	335	1.26	50	10	404	60.6	850	392	1.23	70	17	406	53.0	862	364	1.23	59
11	14	501	65.6	1529	711	1.16	71	22	496	61.2	1541	587	1.21	100	36	498	62.1	1536	628	1.19	89
12	20	591	40.1	2640	528	1.26	100	21	550	37.2	2102	521	1.24	100	42	570	43.1	2358	579	1.25	98
13	32	580	54.9	2523	735	1.26	97	35	554	51.6	2143	644	1.22	97	67	567	54.4	2325	710	1.24	97
14	12	617	50.2	3104	640	1.32	100	18	559	37.0	2300	483	1.30	94	30	582	50.7	2622	673	1.31	97
15	8	611	19.1	2775	266	1.22	100	8	571	39.9	2375	484	1.27	100	16	591	36.7	2575	430	1.25	100
16	2	550	75.0	2075	1096	1.18	100	1	622	-	2700	-	1.12	100	3	574	67.4	2283	855	1.16	100
17	1	697	-	3150	-	0.93	100	2	594	9.2	2700	141	1.29	100	3	628	60.1	2850	278	1.17	100
18	-	-	-	-	-	-	-	1	578	-	2450	-	1.27	100	1	578	-	2450	-	1.27	100
TOTAL	109							152							269						
MEAN		544	96	2181	981	1.26			502	87.7	1719	803	1.25			515	97.6	1874	926	1.26	
MEAN AGE	11.8																				

Table 88. Biological data by length interval for Arctic charr taken from Netsilik River (Spence Bay area), 31 August to 7 September, 1983.

LENGTH INTERVAL (MM)	MALES N	MALES LENGTH(MM) MEAN	MALES WEIGHT(G) MEAN	MALES WEIGHT(G) SD	MALES K	MALES % MAT	FEMALES N	FEMALES LENGTH(MM) MEAN	FEMALES WEIGHT(G) MEAN	FEMALES WEIGHT(G) SD	FEMALES K	FEMALES % MAT	COMBINED N	COMBINED LENGTH(MM) MEAN	COMBINED WEIGHT(G) MEAN	COMBINED WEIGHT(G) SD	COMBINED K	COMBINED % MAT
250	-	-	-	-	-	-	1	294	400	-	1.57	0	3	277	350	87	1.62	0
300	4	323	550	71	1.65	0	9	327	472	83	1.37	11	17	324	515	149	1.54	6
350	10	374	630	155	1.21	0	16	374	641	84	1.22	31	28	375	632	112	1.20	18
400	7	420	936	163	1.26	57	21	424	940	128	1.23	76	28	423	939	134	1.24	71
450	10	479	1225	138	1.11	90	22	474	1227	125	1.16	91	32	475	1227	127	1.14	91
500	16	523	1825	383	1.27	94	31	528	1874	392	1.27	100	47	526	1857	385	1.27	98
550	31	581	2452	326	1.25	97	53	572	2370	246	1.26	98	85	575	2396	279	1.26	96
600	34	618	2978	299	1.26	100	16	613	2884	252	1.25	100	50	617	2948	286	1.26	100
650	7	667	3543	369	1.20	100	1	693	3300	-	0.99	100	8	670	3513	352	1.17	100
700	1	707	4400	-	1.25	100	-	-	-	-	-	-	1	707	4400	-	1.25	100
TOTAL	120						170						299					
MEAN		546	2191	954	1.25			504	1734	804	1.25			516	1886	912	1.26	

Table 89. Test fishery results for Arctic charr from Crooked Lake (Spence Bay area), 24-27 April 1982.

PRODUCTION

Quota	Harvest
Nil	20 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
13	63	-	9.76	31.98	50.28

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	9	-5.4182	3.1272	2.5801-3.6742	0.98
Female	4	-6.3448	3.4931	2.6631-4.3231	0.99
Total	13	-5.6252	3.2112	2.7757-3.6469	0.98

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)
No Ages Available					

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 90. Test fishery results for least cisco from Crooked Lake (Spence Bay area), 24-27 April 1982.

PRODUCTION

Quota	Harvest
454 kg	13 kg

CATCH-EFFORT

Total Number Of Fish	Mesh Size (mm)	Net Depth (Meshes)	Hours Set Per 100 (m)	CPE[1]	CPE[2]
32	63	-	9.76	78.72	31.09

LENGTH-WEIGHT RELATIONSHIP $\log_{10}W = a + b (\log_{10}L)$

Sex	N	Y-Intercept (a)	Slope (b)	95% C.I. of b	r
Male	17	0.1424	0.9752	-13.1122-15.0626	0.04
Female	13	-2.7738	2.1154	-0.0068-4.2376	0.55
Total	31	-0.8072	1.3482	-2.9604-5.6568	0.12

MORTALITY

Age-Classes Used	N	Instantaneous Total Mortality (Z) (Catch Curve)	r	Annual Mortality (A)	Annual Survival (S)

No Ages Available

[1] CPE = No. fish/100 m/24 h.
[2] CPE = kg rd wt/100 m/24 h.

Table 91. Biological data by length interval for Arctic charr from Crooked Lake (Spence Bay area), 24-27 April, 1982.

LENGTH INTERVAL (MM)	MALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	% FEMALE
300	1	11	322	260	-	0.78	-	-	-	-	-	-	1	8	322	260	-	0.78	-
350	1	11	363	400	-	0.84	1	25	397	520	-	0.83	2	15	380	460	85	0.83	50
450	1	11	455	870	-	0.92	-	-	-	-	-	-	1	8	455	870	-	0.92	-
500	1	11	525	1050	-	0.73	1	25	504	1280	-	1.00	2	15	515	1165	163	0.86	50
550	1	11	567	1570	-	0.86	1	25	560	1930	-	1.10	2	15	564	1750	255	0.98	50
600	2	22	615	2005	799	0.85	-	-	-	-	-	-	2	15	615	2005	799	0.85	-
650	2	22	661	2680	438	0.93	1	25	671	3190	-	1.06	3	23	664	2850	428	0.97	33
TOTAL	9						4						13						
MEAN			531	1502	967	0.86			533	1730	1131	1.00			532	1572	977	0.90	31

Table 92. Biological data by length interval for least cisco from Crooked Lake (Spence Bay area), 24-27 April, 1982.

LENGTH INTERVAL (MM)	MALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	FEMALES N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	COMBINED N	%	LENGTH(MM) MEAN	WEIGHT(G) MEAN	SD	K	% FEMALE
320	1	6	329	250	-	0.70	-	-	-	-	-	-	1	3	329	250	-	0.70	-
330	6	35	337	357	40	0.94	-	-	-	-	-	-	7	23	337	359	37	0.94	-
340	8	47	345	785	1140	1.96	1	8	348	420	-	1.00	9	29	345	744	1074	1.85	11
350	2	12	358	385	21	0.84	4	31	355	413	30	0.93	6	19	356	403	29	0.90	67
360	-	-	-	-	-	-	5	38	365	434	43	0.89	5	16	365	434	43	0.89	-
370	-	-	-	-	-	-	2	15	374	515	21	0.99	2	6	374	515	21	0.99	-
380	-	-	-	-	-	-	1	8	381	450	-	0.81	1	3	381	450	-	0.81	-
TOTAL	17						13						31						
MEAN			343	555	788	1.39			363	440	46	0.92			351	501	579	1.18	43